# DEPARTMENT OF HEARING AND SPEECH SCIENCES

**UNIVERSITY OF MARYLAND, COLLEGE PARK**

**Doctoral Program in Clinical Audiology**

## Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Overview</td>
<td>4</td>
</tr>
<tr>
<td>Admission Requirements</td>
<td>5</td>
</tr>
<tr>
<td>Information for Post-B.A. Applicants</td>
<td>5</td>
</tr>
<tr>
<td>Information/Requirements for Applicants with a Graduate Degree in Audiology</td>
<td>6</td>
</tr>
<tr>
<td>Applications to Switch Disciplines within the Department of Hearing &amp; Speech Sciences</td>
<td>6</td>
</tr>
<tr>
<td>Academic Requirements and Length of Program</td>
<td>6</td>
</tr>
<tr>
<td>Au.D.</td>
<td>6</td>
</tr>
<tr>
<td>Dual Degree Au.D./Ph.D.</td>
<td>7</td>
</tr>
<tr>
<td>Applications to Switch from the Au.D. to Dual Degree (Au.D./Ph.D.)</td>
<td>7</td>
</tr>
<tr>
<td>Registration Requirements</td>
<td>8</td>
</tr>
<tr>
<td>Pre-requisites</td>
<td>8</td>
</tr>
<tr>
<td>Credit for Previous Graduate Coursework</td>
<td>8</td>
</tr>
<tr>
<td>Post-B.A. Students</td>
<td>9</td>
</tr>
<tr>
<td>Post-M.A. Students</td>
<td>9</td>
</tr>
<tr>
<td>Registration After Admission to Doctoral Candidacy</td>
<td>10</td>
</tr>
<tr>
<td>Maintaining Good Academic Standing in Graduate School</td>
<td>10</td>
</tr>
<tr>
<td>Detailed Curricula for the Doctoral Program</td>
<td>11</td>
</tr>
<tr>
<td>Au.D. Curriculum</td>
<td>11</td>
</tr>
<tr>
<td>Dual Degree (Au.D./Ph.D.) Curriculum</td>
<td>12</td>
</tr>
<tr>
<td>Clinical Certification Requirements for ASHA and ABA</td>
<td>13</td>
</tr>
<tr>
<td>GPA Requirements</td>
<td>14</td>
</tr>
<tr>
<td>Clinical Practicum</td>
<td>14</td>
</tr>
<tr>
<td>Clinical Practicum Enrollment</td>
<td>15</td>
</tr>
<tr>
<td>The Clinical Internship</td>
<td>15</td>
</tr>
<tr>
<td>Department Policy Pertaining to Clinical Practicum Enrollments</td>
<td>16</td>
</tr>
<tr>
<td>Research and Comprehensive Examination Requirements</td>
<td>17</td>
</tr>
</tbody>
</table>

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Program Overview

The Doctoral Program in Clinical Audiology (CAUD) is an academically based, clinically oriented program designed primarily to prepare professional Audiologists. While information pertaining to hearing disorders comprises the central focus of the degree, education about the normal processes of communication, as well as about research design, is considered an integral part of the program.

The primary goal of the CAUD program in Audiology is to provide knowledge and promote advanced competencies in the assessment, prevention, and habilitation/rehabilitation of disorders of hearing and vestibular function. The secondary goal is to provide students with basic competencies in the design of clinically oriented empirical studies of auditory and vestibular function.

The CAUD program offers two degree tracks: one track leads to the Doctor of Audiology (Au.D.) degree and the other track leads to dual degrees [Au.D./Doctor of Philosophy (Ph.D.) degree]. The Au.D. track entails a comprehensive educational program with a focus on clinical practicum and coursework that trains individuals to become professional audiologists; the dual degree track provides similar clinical training and coursework, in addition to more extensive research training, to students interested in pursuing both the Au.D. and Ph.D. degrees. Both tracks of the Doctoral Program in Clinical Audiology exceed the academic and clinical practicum requirements for the Certificate of Clinical Competence (CCC) granted by the American Speech-Language-Hearing Association (ASHA). The doctoral (Au.D.) education program in audiology at the University of Maryland is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association, 2200 Research Boulevard #310, Rockville, Maryland 20850, 800-498-2071 or 301-296-5700. The degrees also satisfy academic and clinical practicum requirements for Board Certification in Audiology granted by the American Board of Audiology (ABA).

ASHA requirements stipulate that individuals seeking certification in Audiology are required to have 75 hours of graduate study in Audiology and related disciplines, a one-year, full-time clinical internship, and demonstration of acquisition of knowledge and mastery of skills in a number of specific substantive areas. A doctoral degree, which includes the one-year, full-time clinical experience, is required by ASHA for the practice of Audiology. Both tracks of the Doctoral Program in Clinical Audiology exceed these requirements. Details of the requirements for ASHA certification are described later in this document. The American Academy of Audiology (AAA) specifies that a doctoral level degree in Audiology from a regionally accredited college or university, in addition to specified clinical practice, is required for Board Certification in Audiology. Further details of the American Board of Audiology Certification Program can be found in Appendix I. Additionally, most states have licensure requirements for the practice of Audiology, which vary from state to state. However, most state licensure laws follow ASHA requirements.

The Doctoral Program in Clinical Audiology at the University of Maryland accepts students who hold a Bachelor's degree in Hearing and Speech Sciences, or who come from non-hearing and speech backgrounds. The latter group of students is required to complete appropriate preparatory coursework prior to full participation in the graduate program. Students are accepted into the post-BA program on a full-time basis. The Doctoral Program in Clinical Audiology is also offered to students who have already earned a Master's degree in Audiology and who have practiced in the field for at least two years. The Doctoral Program for post-MA students is available on a full-time or part-time basis.

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Admission Requirements for the
Doctoral Program in Clinical Audiology

Increasingly larger numbers of students are interested in pursuing careers in Audiology. Admission to
the graduate programs in the Department of Hearing and Speech Sciences is on a very competitive
basis. Successful applicants typically demonstrate a minimum GPA of 3.2 from a master's degree
program or from a baccalaureate program in hearing and speech sciences or a related discipline,
together with strong GRE scores, well-written letters of intent, and strong letters of recommendation.
The Admissions Committee evaluates all applications carefully, and considers the applicant's whole
application, rather than scores in any single domain. Additionally, members of the Hearing and Speech
Sciences faculty are available to answer questions that applicants might have regarding their potential
qualifications for entry into our graduate programs. Potential applicants should call the Department
office for further information, at (301) 405-4214.

Admission to all programs is primarily confined to fall matriculation, although students may enter the
program in the preceding summer session to complete undergraduate pre-requisites. Prospective
applicants should note that decisions on fall admissions are made between February and April.
Students must submit completed application materials for the fall semester by the deadline stated on
the University of Maryland Graduate School website (http://www.gradschool.umd.edu) [note: this
deadline is usually in early January].

**Important note to all applicants:**
Please Specify the Degree Program to Which You Are Seeking Admission

Please note that graduate students are admitted to a specific degree program in the Graduate School
(i.e., Au.D. or dual (Au.D./Ph.D.) degree in Doctoral Program in Clinical Audiology, M.A. degree in
Speech-Language Pathology, traditional Ph.D. in Hearing and Speech Sciences). Students interested in
either the Au.D. or dual degree (Au.D./Ph.D.) must specify the program code CAUD on the Graduate
Application. Students interested in a traditional research Ph.D., without any clinical practicum
training, should apply directly for admission to the Ph.D. program in Hearing and Speech Sciences,
Program Code: HESP).

**Post-B.A. Applicants for Au.D. Degree**

Students pursuing the post-B.A. doctoral program in Clinical Audiology are admitted on a full-time
basis only. The time required for completion of the doctoral program in Clinical Audiology for post-
B.A. students is usually four years of full-time graduate study for the Au.D. track. Individuals without
a background in the hearing and speech sciences typically require an additional two semesters to
complete the degree requirements.

**Post-B.A. Applicants for Au.D./Ph.D. Degrees**

Students who seek admission to the dual degree program will be competitive if they demonstrate
unusual promise for a career in research. This includes outstanding performance in an undergraduate
program of study, high GRE scores, and prior research experience culminating in presentations or
publications of research findings. Students interested in the dual degree track are admitted into the
program and request a switch to the dual degree program after completion of the 2\textsuperscript{nd} year of study. The
time required for completion of the dual degree track is 6-7 years of full-time graduate study.
Applicants with a Graduate Degree in Audiology

The doctoral program in Clinical Audiology is also available to practicing audiologists. These applicants must have a graduate degree in audiology with a minimum grade point average of 3.2 in graduate work, and one of the following: the ASHA Certificate of Clinical Competence in Audiology (CCC-A), ABA Certification, or a valid state license to practice audiology. Admissions requirements further include a minimum of two years of recent, full time (32 hours/week) post-masters professional audiology experience preceding the application to the program, and three letters of recommendation supporting these experiences. Credentials of these students will be evaluated on an individual basis, and requirements for the program will be adjusted accordingly, permitting students to graduate in a much shorter time period. Students already holding an M.A. degree may enroll in the doctoral program on a part-time basis.

Applications to Switch Disciplines within the Department

Students seeking to switch disciplines (e.g., Audiology to Speech-Language Pathology; Speech-Language Pathology to Audiology) must submit a written petition to the Departmental Admissions Committee. This petition will be evaluated against usual departmental standards for admission, the cohort of pending applicants to the semester of intended admission, as well as space availability. Applicants for program transfer must apply by the Graduate School deadline for application to graduate degree programs. The Departmental Admissions Committee will provide a written response to the applicant in a timely fashion. If the request is approved, the Admissions Committee will complete the form “Change of Graduate Degree” and submit it to Graduate Enrollment Management Services (GEMS) via e-mail. The form must be signed by the student’s academic advisor, the Director of Graduate Studies of the program to which the student is switching, and the HESP Department Chair. This form can be downloaded from the department website.

Academic Requirements and Length of Program

Au.D. Degree

The track leading to the Au.D. degree requires 57 credit hours of graduate coursework, 4 credit hours for a capstone research project, 14 credit hours of clinical practicum registration, and 18 credit hours of full-time clinical internship registration, for a total of 93 credit hours. Au.D. students must pass comprehensive examinations and conduct a capstone research project. The expected time frame for completion of the full-time, post-BA Doctoral Program in Clinical Audiology is 4 years, including summers, for the Au.D. track. For students who enter the doctoral program without a background in the hearing or speech sciences, the expected time frame for completion of the doctoral degree is an additional one to two semesters of full-time enrollment.

Professional audiologists (post-M.A.) who enter the Doctoral Program in Clinical Audiology will be evaluated on an individual basis to determine the minimum requirements to complete the course of study for an Au.D. (See “Registration Requirements” for further details). It is anticipated that in most cases, the time period required for completion of the degree is 2 years equivalent full-time study for the Au.D. degree.
Dual Degree Program (Au.D./Ph.D.)

The track leading to the Au.D./Ph.D. degrees in Clinical Audiology requires 60 credit hours of graduate coursework, 6 credit hours of pre-candidacy research, 12 credit hours of dissertation research, 12 credit hours of clinical practicum registration, and 18 credit hours of full-time clinical internship registration, for a total of 108 credit hours. Ph.D. students must develop an individual study plan with the approval of a faculty Program Planning Committee (PPC), complete candidacy research, pass comprehensive examinations, and complete a dissertation and oral defense. Full-time students are expected to complete the Ph.D. track in approximately 6-7 years, including summers. Upon advancing to Doctoral Candidacy (completing coursework, comprehensive examinations, and candidacy research project) and completing the 4th-year clinical internship, students will be awarded the Au.D. degree.

Professional audiologists (post-M.A.) who enter the Doctoral Program in Clinical Audiology will be evaluated on an individual basis to determine the minimum requirements to complete the course of study for the dual degree track. (See “Registration Requirements” for further details). Professional audiologists who seek this track generally will require 4-5 years equivalent full-time study for the Ph.D. degree. These students will be awarded the Au.D. degree upon completion of coursework, comprehensive examinations, and the Candidacy Research project.

Applications to Switch from the Au.D. to the dual degree (Au.D./Ph.D.) program

Students in the Au.D. track have the option to apply to switch to the Au.D./Ph.D. track. The Au.D./Ph.D. is a highly rigorous program that combines clinical training with a significant research component culminating in a 12-credit dissertation. The Department encourages academically talented students who seek a career in research or academia to contemplate this degree option. A formal mechanism exists for requesting a change in the degree program from the Au.D. degree to the dual (Au.D./Ph.D.) degree.

Students may request a change in their graduate degree no sooner than the end of the second year of graduate study. This time-frame is desirable so that students have had an opportunity to complete the Research Design and Quantitative Research Methods courses. Students will be permitted to request a change in degree status at any later time, as long as they fulfill all requirements for admission to Au.D. candidacy and completion of the dual degrees as they proceed in their program of study.

Students requesting a change in the graduate degree must submit a packet of materials to the Director of the Doctoral Program in Clinical Audiology. These materials include the following:

1) a letter of intent
2) a transcript of the first two or more years of graduate study
3) a paper written by the student during any course in graduate school
4) a curriculum vitae highlighting prior research experiences

The student’s materials will be reviewed by a committee of the CAUD faculty, and the faculty will make a recommendation to the Admissions Committee. The committee will take into consideration the student’s overall GPA and performance in the following classes: Research Design (HESP 724) and Quantitative Research Methods (EDMS 645). The Admissions Committee may conduct its own review of the application, and will inform the student of the final decision.

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If the request is approved, the Admissions Committee will complete the form “Change of Graduate Degree” and submit it to Graduate Enrollment Management Services (GEMS) via e-mail. The form must be signed by the student’s academic advisor, Director of the Doctoral Program in Clinical Audiology, and the HESP Department Chair. This form can be downloaded from the department website. Please see the separate Handbook for the Dual-Degree Program for additional details.

Registration Requirements

Pre-requisites

Students whose undergraduate degrees are not in Hearing and Speech Sciences will be required to take undergraduate preparatory courses prior to, or concurrent with, enrolling in graduate-level courses. In addition, some general education requirements are specified by ASHA. These general education courses must be verified in the application for the CCC.

General pre-requisites. Any student who has not taken a course in statistics at the undergraduate level must complete a course in their graduate program, prior to enrolling in graduate-level statistics courses required for the degree. Students should note that courses for which only a portion of the semester was devoted to statistics are not acceptable. Additionally, students must have completed undergraduate coursework in the areas of life sciences, physical sciences, behavioral sciences, and mathematics beyond college algebra. At least one three-credit course in each of these areas must be completed for an applicant to be eligible for ASHA certification. Students must also demonstrate completion of relevant coursework in the areas of oral and written communication.

Discipline-specific pre-requisites. Students must have completed the following HESP undergraduate courses or their equivalents (see the Course Descriptions section of this document for further information):

- HESP 311: Anatomy, Physiology, and Pathology of the Auditory System
- HESP 400: Speech and Language Development in Children
- HESP 407: Bases of Hearing Science
- HESP 411: Introduction to Audiology
- HESP 417: Principles and Methods of Speech-Language Pathology and Audiology

Credit for Previous Graduate Coursework

The University of Maryland automatically allows transfer of up to six credits (e.g., two courses) of eligible graduate coursework taken before matriculation, or at another institution, into a graduate program. A new Graduate School policy enables departments to exercise discretion in raising this number to 12 credits (four courses). Students wishing to transfer up to 12 credits must petition the HESP faculty for consideration of these additional credits.
Post-B.A. Students

The Doctoral Program in Clinical Audiology for post-BA students is a full-time program; part-time students are not accepted. Graduate education in this discipline requires timely and concurrent registrations in both academic and clinical experiences. Full-time registration is formally defined by the Department of Hearing and Speech Sciences as enrollment for 8-12 credits per semester. In the first two years of study, this will typically consist of three graduate courses and two or more credits of clinical practicum per semester. For Au.D. students, the third year registration will typically include two graduate courses, two credits of clinical practicum per semester and four credits for the capstone research project; the fourth year registration is primarily for the full-time clinical internship. For dual-degree Au.D./Ph.D. students, Years 3, 4, and 5 include additional coursework, candidacy and dissertation research, and the full-time clinical internship. Full-time commitment and course sequence are critical, because most graduate courses are offered only once per academic year and course content is closely tied to clinical practicum assignments. Moreover, full-time enrollment assures timely completion of the program. Enrollment in clinical practicum places significant time demands on students during the work week. Clinicians registered for clinical practica should be prepared to devote approximately 20-30 hours per week to the preparation, implementation, and analysis of clinical experiences.

All students seeking the Au.D. degree must accumulate a minimum of 93 hours of graduate level academic coursework and clinical practicum. Each student in the Doctoral Program in Clinical Audiology will develop an Individual Study Plan with his/her graduate advisor during the first year of the program, to be reviewed annually. The Study Plan for post-B.A. students pursuing the Au.D. track will include required and elective courses, potential sites for clinical internships, comprehensive exam areas, and the capstone research project.

Students pursuing the dual degree track (Au.D./Ph.D.) must successfully complete 108 hours of graduate level academic coursework and clinical practicum. For students accepted into the dual degree track, the Individual Study Plan will be developed by the student in consultation with the advisor. This Plan must be approved annually by a Program Planning Committee (PPC) composed of the advisor and at least two additional members of the Department's faculty who are members of the Graduate Faculty of the University of Maryland. The Study Plan for Au.D./Ph.D. students will include required courses, elective courses, potential sites for a research internship, potential sites for clinical internships, comprehensive exam areas, and a dissertation plan.

Post-MA students

As noted above, post-MA students who are practicing audiologists may enroll in the Doctoral Program in Clinical Audiology on either a full-time or a part-time basis. Full-time registration is formally defined by the Department of Hearing and Speech Sciences as enrollment for 8-12 credits per semester. A typical part-time load is two courses per semester (approximately 6 credits).

Each student who has already earned an M.A. in Audiology will furnish a transcript of previous graduate coursework successfully completed, as well as a documented description of clinical experience. It is generally expected that a minimum of 30 credits will be taken in the core and elective areas combined, comprehensive examinations will be completed, and a minimum of 4 credits will be taken for the capstone research project for satisfactory completion of the Au.D. degree. Clinical practicum registrations will be available in advanced diagnostic and rehabilitative techniques.
A professional student who selects the dual degree track will similarly develop an Individual Study Plan with their academic advisor, in consultation with the Program Planning Committee (PPC), and will take coursework and research registrations commensurate with that degree.

The Study Plan for post-M.A. students will be limited to required courses that have not been taken previously, elective courses, comprehensive exam areas, a research project/dissertation plan, and potential clinical rotations if they are deemed necessary.

**Registration after Admission to Doctoral Candidacy**

Students seeking the Au.D. degree who have met all of the coursework requirements for the degree, passed comprehensive examinations, and passed the Capstone Research I course (HES 849) will be advanced to Doctoral Candidacy. Graduate school regulations specify that students must be advanced to Doctoral Candidacy at least 6 months prior to graduation. Students will generally be advanced to Doctoral Candidacy at the end of the spring semester in Year 3 of the program. Once admitted to Doctoral Candidacy, students will register for 6 credits of HESP 829 (“Clinical Internship Residency”) during the summer, fall, and spring semesters in order to accrue the 18 credits required for graduation. Students must be enrolled for at least one credit, regardless of credits already accumulated, in the semester of graduation. Students who are graduating in the summer must register for one credit of either HESP 859 or six credits of HESP 829 (Capstone Research II or Clinical Internship, respectively) to satisfy this requirement, depending on the reason for delayed graduation.

Students seeking the dual degree (Au.D./Ph.D.) who have completed all of the coursework requirements and passed the Au.D. comprehensive examinations will be admitted to AuD. Doctoral Candidacy. Upon completion of the Candidacy Research Project (HESP 898) and 12-month Clinical Internship Residency (18 credits of HESP 829), these students will be awarded the Au.D. degree. The student must submit an application to the Graduate School for admission to the Ph.D. phase of the program (although they are already admitted by the department) and will take an additional comprehensive examination question directed at their area of research. Upon successful completion of the Ph.D. comprehensive examination, the student will be advanced to Ph.D. Doctoral Candidacy. Once a student is admitted to Ph.D. Doctoral Candidacy, the Graduate School automatically registers the student for 6 credits of HESP 899 (Doctoral Dissertation Research) for each fall and spring semester until all requirements for the degree are completed. All students must be enrolled for at least one credit, regardless of credits already accumulated, in the semester of graduation. Students who are graduating in the summer must register for one credit of HESP 899 to satisfy this requirement.

**Maintaining Good Academic Standing in Graduate School**

A minimum grade point average of 3.0 (on a 4.0 scale) is required for all courses taken after matriculation as a graduate student. Students whose GPA falls below a 3.0 will be placed on academic probation. Students on academic probation cannot take comprehensive examinations, go on outside placements, or begin the 4th year clinical internship. Please see the section on Department Policy Pertaining to Clinical Practicum Enrollments for further information on implications of academic probation. The Graduate School Catalog also has relevant information on academic probation (see [http://www.gradschool.umd.edu/catalog/academic_record.htm](http://www.gradschool.umd.edu/catalog/academic_record.htm)).
Detailed Curricula for the Doctoral Program in Clinical Audiology

NOTE: The curricula shown do not reflect clinical practicum registrations or additional coursework that may be necessary to meet ASHA certification requirements for students coming to the graduate program from non-HESP backgrounds.

Au.D. Curriculum

Undergraduate Pre-Requisite Courses (12 credits)
HESP 311 Anatomy and Physiology of the Auditory System (3)
HESP 400 Speech and Language Development in children (3)
HESP 407 Bases of Hearing Science (3)
HESP 411 Introduction to Audiology (3)

Core Courses
a. Basic Science (12 credits)
HESP 600 Instrumentation (3) OR HESP 604 Acoustic and Perceptual Phonetics (3)
HESP 628 Anatomy and Physiology of the Auditory and Vestibular Systems (3) [HESP 848]*
HESP 722 Psychoacoustics (3)
HESP 724 Research Design (3)

b. Audiology (42 credits)
HESP 606 Basic Hearing Measurement (3)
HESP 615 Counseling in Communicative Disorders (3) [HESP 639G]*
HESP 630 Electrophysiologic Measurements (3)
HESP 632 Medical Audiology (3)
HESP 635 Rehabilitative Audiology (3)
HESP 636 Geriatric Audiology (3)
HESP 645 Pediatric Audiology (3)
HESP 700 Hearing Aids I (3)
HESP 701 Hearing Aids II (3)
HESP 704 Audiology Practice Management (3) [HESP 848]*
HESP 706 Advanced Clinical Audiology (3)
HESP 710 Industrial and Environmental Noise (3)
HESP 712 Cochlear Implants and Other Implantable Technologies (3) [HESP 848]*
HESP 730 Vestibular-ocular Assessment and Management (3)

c. Additional Course Requirements: (3 credits)
EDMS 645 Quantitative Research Methods I (3) or equivalent

Capstone Research Project: (4 credits)
HESP 849 Capstone Research I (2)
HESP 859 Capstone Research II (2)

*Course numbers prior to final VPAC approval, expected Dec, 2014
### Dual Degree (Au.D./Ph.D.) Curriculum

**Undergraduate Pre-Requisite Courses** *(12 credits)*
- HESP 311  Anatomy and Physiology of the Auditory System (3)
- HESP 400  Speech and Language Development in children (3)
- HESP 407  Bases of Hearing Science (3)
- HESP 411  Introduction to Audiology (3)

**Core Courses**

**a. Basic Science** *(12 credits)*
- HESP 600  Instrumentation (3) OR  HESP 604  Acoustic and Perceptual Phonetics (3)
- HESP 628  Anatomy and Physiology of the Auditory and Vestibular Systems (3) [HESP 848]*
- HESP 722  Psychoacoustics (3)
- HESP 724  Research Design (3)

**b. Audiology** *(30 credits)*
- HESP 606  Basic Hearing Measurement (3)
- HESP 630  Electrophysiologic Measurements (3)
- HESP 632  Medical Audiology (3)
- HESP 635  Rehabilitative Audiology (3)
- HESP 636  Geriatric Audiology (3)
- HESP 645  Pediatric Audiology (3)
- HESP 700  Hearing Aids I (3)
- HESP 701  Hearing Aids II (3)
- HESP 706  Advanced Clinical Audiology (3)
- HESP 730  Vestibular-ocular Assessment and Management (3)

**c. Additional Course Requirements:** *(8 credits)*
- BIOL 600  Scientific Ethics (2)
- EDMS 645  Quantitative Research Methods I (3)
- EDMS 646  Quantitative Research Methods II (3)

**Graduate Electives** *(10 credits)*

**Pre-Dissertation and Dissertation Research:** *(18 credits)*
- HESP 898  Doctoral Candidacy Research (6)
- HESP 899  Doctoral Dissertation Research (12)

*Course number prior to VPAC approval, expected December, 2014*
Clinical Certification Requirements by the American Speech-Language-Hearing Association and the American Board of Audiology

In order to meet requirements for ASHA’s Certificate of Clinical Competence (C.C.C.) in Audiology, students must earn a doctoral degree. The program of graduate study includes academic coursework and a minimum of 1820 hours of supervised clinical practicum sufficient in depth and breadth to achieve the knowledge and skills outcomes stipulated in the standard.

Although specific coursework is not detailed in the standard, applicants for certification must have acquired knowledge and developed skills in six areas: foundations of practice, prevention and assessment, intervention, advocacy/consultation, and education/research/administration. In addition, applicants must have prerequisite skills in life sciences, physical sciences, behavioral sciences, and mathematics. Evidence of successful completion of the required knowledge and skills is through formative and summative assessments. Each student will be required to maintain a portfolio of the formative and summative assessments conducted as part of coursework, clinical practicum, and the comprehensive examination process. Further, it is crucial that students meet with advisors to assure that their curriculum plan will satisfy ASHA requirements for certification.

Specific requirements for certification in Audiology may be found in the ASHA Membership and Certification handbook, which may be obtained by contacting the American Speech-Language-Hearing Association:

American Speech, Language and Hearing Association
2200 Research Blvd.
Rockville, MD 20850
(800) 498-2071

The requirements are also posted on ASHA’s website:
http://www.asha.org/Certification/2012-Audiology-Certification-Standards/

The American Board of Audiology (ABA) does not detail any specific coursework required for certification. The ABA requires applicants to have an earned doctoral degree in Audiology from a regionally accredited college or university, including 2,000 hours of mentored professional practice in Audiology. Please see Appendix I for further details of ABA certification. Links to the ABA Certification Handbook can be found online at:

http://www.americanboardofaudiology.org/pdf/20120917_HANDBOOK.pdf
GPA Requirements

The Graduate School requires that students maintain a 3.0 overall GPA (including both academic coursework and clinical practica); students with GPAs below this go on academic probation. However, our department has slightly more specific requirements, above and beyond these graduate-school requirements:

1. A minimum grade point average of 3.0 (on a 4.0 scale) is required for all academic courses taken after matriculation as a graduate student. Academic courses include all courses other than 649A, 649B, 729, and 829.

2. Clinical practicum requirements are that students receive a minimum grade of B-; students not meeting that requirement will be reviewed by the faculty to determine eligibility for future practicum placement.

3. Students pursuing prerequisite coursework (that is, students with provisional admission) must maintain a 3.25 GPA in these courses in order to maintain their eligibility for graduate-level coursework.

Finally, the Graduate School determines probationary status on the basis of graduate-level coursework only – this includes courses 400-level and above. Thus, a student who is taking prerequisite coursework needs not only to maintain an overall 3.25 GPA, but must also be above a 3.0 when only the courses at the 400-level and above are considered.

A student on academic probation at the end of a given semester is not eligible for outside placement during the next semester (he or she must register for a semester of in-house practicum). Moreover, students cannot graduate, take comprehensive exams, or present a Capstone Project while on academic probation.

Please note that it is the student's responsibility to calculate his or her own GPA and to ensure continued non-probationary status. Instructions on how to calculate a GPA can be found here: http://www.prehealth.umd.edu/applicantcycle/gpacalculator. If a student's grades fall below the minimum levels, he or she is responsible for setting up an immediate meeting with the academic advisor to discuss the situation, prior to receiving any notification from the Graduate School or the Department.

Clinical Practicum

In order to be recommended to the American Speech-Language-Hearing Association for Clinical Certification in Audiology, and to comply with standards effective for applications made to the Association after January 1, 2012, a student must accumulate 1820 supervised clock hours of clinical practicum. ABA certification requires 2,000 hours of mentored professional practice within the last two years. These requirements are satisfied through the doctoral program’s required clinical practicum sequence. Practicum enrollment is concurrent with coursework registration, and carries additional registration charges.
Students engage in practicum throughout their first three years to ensure breadth of clinical experience. First and second year students complete their practicum training on campus at the Department's Speech and Hearing Clinic, under the supervision of program faculty. Beginning with the second semester of the second year, students will continue the training in at least two external placements throughout the Greater Washington, DC and Baltimore, MD areas. Students are guided through the application process for securing their full-time Clinical Internships at departmentally approved sites.

The Clinical Internship, typically completed during the fourth year of the program, is the final clinical requirement necessary for the student's training. The Doctoral program in Clinical Audiology will make every effort to ensure that students obtain full-time clinical internships consistent with the goals of the training program.

Clinical Practicum Enrollment

Students interested in obtaining certification/licensure shall participate in clinical practicum during all or most semesters of their graduate training, until the clinical skills and the minimum amount of clinical experience required for the ASHA C.C.C. have been obtained. Prior to enrolling in clinical practicum, all students must have completed the undergraduate course, HESP 417 (Principles and Methods in Speech-Language Pathology and Audiology) or its equivalent. Initially, all students perform evaluation and treatment activities at the University of Maryland Speech and Hearing Clinic. Registration in HESP 649A (Clinical Practice in Audiology: Diagnostic Procedures) is for two credit hours per semester. Registration in HESP 649B (Clinical Practice in Audiology: Aural Rehabilitation) is for two credit hours.

Students who have (1) demonstrated adequate skills in the University of Maryland Clinic, (2) obtained a satisfactory number of hours of clinical experience in HESP 649A and B, and (3) satisfactorily completed appropriate coursework may apply for outside placement (HESP 729) in one of the hospital/clinic/school facilities in the Washington, D.C. or Baltimore metropolitan areas. These placements, which usually do not occur until the second or third year of graduate study, must be arranged and approved by the HESP faculty. Registration for HESP 729 (Advanced Clinical Practice in Audiology) is always for two credit hours. A listing of current outside placement opportunities for HESP students is provided in Appendix II. This list should be considered representative of student opportunities, but is subject to change.

The Clinical Internship

Students in the fourth year of the Au.D. program will participate in a full-time clinical internship. Registration for the Clinical Internship (HESP 829: Clinical Internship Residency) is for a total of 18 credit hours. Beginning in 2013, students will register for 6 credit hours for each of three semesters (summer, fall, and spring) during the fourth year of the program. During the summer session, students register with “Summer School” (Office of Extended Studies). During the regular academic year (fall and spring semesters), the Graduate School and Registrar’s Office will automatically register students for the required 6 credits, until the student graduates. The Internship can occur during the fourth or fifth year for students in the Au.D./Ph.D. track.

The Clinical Internship will be arranged by the student in conjunction with the HESP faculty. The Clinical Internship experience must receive prior approval by the HESP faculty. Students may identify sites for potential Internship placements and present the sites to the faculty for approval. Internship
sites must provide the student with an on-site clinical supervisor who is certified and licensed and must also provide the student with the opportunity to participate in a range of audiological services. The Clinical Internship may take place in the Baltimore-Washington region or at a remote site. The minimum time commitment for the Clinical Internship is nine months of full-time employment.

**Department Policy Pertaining to Clinical Practicum Enrollments**

Departmental permission is required for registration in clinical practicum and is granted only to matriculated students. Students must possess the communicative competencies requisite for the satisfactory conduct of usual clinical procedures. Further, as the client population served by this program is predominantly English-speaking, participants in any clinical practicum must be fluent, intelligible speakers of English.

All students enrolled in clinical practicum are expected to abide by the ASHA Code of Ethics, the ABA Code of Ethics, and the AAA Code of Ethics, provided to each student upon admission to graduate study. Violations of the Code of Ethics may result in permanent dismissal from practicum placement opportunities, and may subject the student to dismissal from the academic degree program.

Clinical practicum students are expected to maintain professional dress and demeanor. Unprofessional conduct or any conduct which compromises the quality of care to clinic patients may result in dismissal from clinical practicum placements.

A student may not go on outside placement, including the Clinical Internship, if he/she is on academic probation (GPA below 3.0). A student will receive credit for hours earned in clinic registrations for which the student receives a grade of C or better; no hours will be credited for clinic registrations for which a student receives a grade of less than C. If a student receives a grade of "C" or less for a clinic registration, the student’s performance will be reviewed by the faculty to determine eligibility for future practicum placement.

A student must complete a minimum of 30 hours of academic coursework prior to applying for outside placement. Students who receive a grade of C or less for an outside placement, or whose outside placements are terminated, must re-register for placement in the University of Maryland Speech and Hearing Clinic (through HESP 649A) and earn a final grade of B or better during the following semester, before being permitted to re-register for outside placement.

Students must successfully complete all coursework [with the possible exception of one or two courses taken concurrently at the beginning of Year 4 of the program: the Seminars in Ethics (HESP 658A or BIOL 600) and the Seminar in Supervision (HESP 658B)] with a grade of C or better, maintain an overall GPA of 3.0 or higher, complete a minimum of two outside placements, pass the Comprehensive Examinations, and advance to Au.D. Doctoral Candidacy before they are eligible to begin their Clinical Internship. In addition, students must complete Capstone Research I (HESP 849) and preferably also complete Capstone Research II (HESP 858) before beginning the Clinical Internship. Arrangements for the Clinical Internship will not be made until the student has completed Capstone Research I (HESP 849); for best placements, this should occur by the fall of Year 3 in the program. Typically, there is a 9-month lag between the start of negotiations for outside placements and the beginning of the placement itself. Students should be aware that if they begin the Clinical Internship prior to completing Capstone Research II (HESP 859), they should expect that completion of the capstone research project will take a significant period of time after they have finished the 4th.

Revision: July 2014
year Clinical Internship. Graduation and awarding of the degree will be delayed until the capstone research project is completed.

**Research and Comprehensive Examination Requirements**

**Au.D. Students**

*Comprehensive Examinations.* University of Maryland regulations state that all doctoral candidates are required to pass comprehensive examinations. The comprehensive examinations usually will be taken during the spring semester of the third year of study for full-time, post-B.A. students. The timing and sequence of comprehensive examinations for professional, post-M.A. students will be determined on an individual basis. In all cases, comprehensive examinations must be taken within five years of admission to the program and at least 6 months prior to completion of the doctoral degree to meet Graduate School requirements.

Specific examination questions will be prepared by the program faculty. The broad content areas of the comprehensive examinations for Au.D. students will emphasize audiologic assessment, audiologic habilitation, hearing science, and research methodology. Students will meet with program faculty and will receive detailed information about the format and content of the comprehensive examinations during the semester prior to the administration of the examination.

The comprehensive examinations are administered in the College Computer Laboratory. Students are expected to type responses to comprehensive examination questions using Microsoft Word. Students may wish to familiarize themselves with the Open Labs in Lefrak Hall prior to their comprehensive testing date. Students requiring special accommodations must consult with their advisor at the start of the semester in which they will be taking the comprehensive examination to arrange for these accommodations.

The comprehensive examinations consist of seven questions distributed in the four broad areas of study listed above: Diagnostic Audiology (2 questions), Rehabilitative Audiology (2 questions), Hearing Science (2 questions), and Research Methods (1 question). Each question is graded by two faculty members. A student must pass all examination questions in order to be admitted to Doctoral Candidacy and prior to going on the 4th year clinical internship.

Following the examination, students will be notified of their performance on the comprehensive examinations via email. Three outcomes are possible. A pass is given if the student receives passing grades on all questions. 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 comprehensive examination must be retaken. In the case of a contingent pass, a student who fails the single question a second time must retake the entire examination. Failure to successfully pass all questions of a second administration of the comprehensive examination will result in dismissal from the program. Further information can be found in the comprehensive examination booklet that will be distributed to students the semester before they take the exam.

*Admission to Candidacy.* Au.D. students who complete all coursework, pass the comprehensive examinations, and complete Capstone Research I (HESP 849) are admitted to doctoral candidacy. Students must be admitted to doctoral candidacy at least 6 months before earning the doctoral degree.

Revision: July 2014
Capstone Research Project. Successful completion of a capstone research project is a requirement for earning the Au.D. degree at the University of Maryland at College Park. Students enrolled in the Au.D. track are required to register for a minimum of 4 capstone research credits (2/ea: HESP 849 and HESP 859).

The capstone research may be an original, hypothesis-driven project of a theoretical, professional, or empirical nature, a retrospective analysis of an existing data set, a scholarly review of literature on a focused topic, or a grant proposal. The capstone project of an Au.D. student is generally expected to be clinically oriented. Written work completed for the capstone project will be prepared in accordance with the style requirements detailed in the most recent edition of the Publication Manual of the American Psychological Association. The student will present the capstone project to a faculty committee at the Capstone Research Day or other departmental seminar. Further information on the capstone research process will be provided as the student proceeds through the program.

Dual Degree (Au.D./Ph.D.) Students

Candidacy Research. The candidacy research project is designed to enhance students’ research skills and productivity at a relatively early stage of their doctoral program. Students register for 6 credits of Doctoral Candidacy Research (HESP 898). The candidacy research may consist of directed research on a project managed by a faculty member in the program, directed research by qualified auditory researchers at UMCP or an affiliated institution, or an independent research project under faculty supervision. The candidacy paper research replaces the Capstone Research requirement for completion of the Au.D. phase of the program. Additional policy documents that detail the candidacy research process and requirements will be available to students pursuing the dual degree.

Comprehensive Examination. The policy and nature of comprehensive examinations for Au.D./Ph.D. students are similar to those described for Au.D. students. Students must pass the “Au.D.” comprehensive examinations to be admitted to Au.D. Doctoral Candidacy. Once the dual-degree student is formally admitted to the Ph.D. phase of the program, they must write a comprehensive examination question in their area of research interest. This question will be administered in a take-home format. Once a student completes the Ph.D. comprehensive examination, they are admitted to Ph.D. Doctoral Candidacy.

Admission to Candidacy. An Au.D./Ph.D. student is admitted to doctoral candidacy twice: once when they have completed all coursework and passed the Au.D. comprehensive examination (this is Au.D. Doctoral Candidacy), and again after they have completed their candidacy research paper requirement and successfully passed the Ph.D. Comprehensive examination (this is Ph.D. Doctoral Candidacy). As stipulated by the graduate school, a student must be admitted to candidacy within five years after admission to the doctoral program and at least six months before the date on which the degree will be conferred.

Dissertation. Twelve credits of doctoral dissertation research (HESP 899) will be required of all students in the dual degree Au.D./Ph.D. track. The dissertation research is expected to be an original, hypothesis-driven project of a theoretical, professional, or empirical nature. The dissertation will be prepared in accordance with the requirements outlined in the University’s Style and Policy Manual for Master’s Theses and Doctoral Dissertations, and should be consistent with style requirements detailed in the most recent version of the Publication Manual of the American Psychological Association.

Revision: July 2014
Students must present a formal proposal to the Dissertation Committee for approval before work begins on the dissertation. This committee will consist of at least three members of the graduate faculty in the student’s discipline and one representative of the Graduate School. Other members will be determined by the student in conjunction with the dissertation advisor. The proposal must be submitted to members of the Dissertation Committee at least two weeks prior to a defense of the proposal. The Dissertation Committee will meet with the student for an oral defense of the proposal.

After the oral proposal defense, the student will collect empirical data, analyze the data with appropriate statistics, write the dissertation, and orally defend the dissertation. In accordance with Graduate School requirements, the student must complete the doctoral program within nine years of beginning the program, or within five years after being advanced to candidacy.

**IRB Approval**

All students conducting capstone, candidacy or dissertation research using human participants or data previously collected from humans must obtain approval for the use of human subjects in research from the University of Maryland Institutional Review Board (IRB). This approval must be obtained regardless of the location of the data collection, and regardless of prior IRB approval from an off-campus site. **There are no exceptions. IRB approval must be obtained prior to collection of any data from human subjects.** Students failing to obtain approval from the IRB will not be awarded a doctoral degree by the University of Maryland at College Park.

Assistance in preparing the IRB proposal can be obtained from the University of Maryland IRB website at http://www.umresearch.umd.edu/IRB/, from the Department’s Faculty Liaison to the IRB and from the faculty mentor.

IRB proposals are submitted online using IRBNet at [https://www.IRBNet.org](https://www.IRBNet.org). Tutorials for submitting proposals through IRBNet can be found at [http://irbnetresources.org/](http://irbnetresources.org/). Access to the IRBNet submission website requires the common login (Directory ID and password).

Students conducting research using live vertebrate animals must gain approval from the Institutional Animal Care & Use Committee (IACUC). Proposals for IACUC are also found at the IRBNet website.

**Outline of Degree Completion Requirements**

Completion of the Doctoral Degree requires a number of steps, as described in the *Degree Completion, Examination, and Graduation Manual*, available from the Graduate School website [http://www.gradschool.umd.edu](http://www.gradschool.umd.edu).

**Au.D. Degree**

The steps for completion of the Au.D. Degree are summarized below. Some of these steps are completed simultaneously.

**Step 1:** Student completes all required coursework for the Degree.

**Step 2:** Student completes supplemental departmental examinations. For Au.D. students, this entails completing Capstone Research I
Step 3: Student completes departmental qualifying examinations (Comprehensive Examinations).

Step 4. Student Advances to Candidacy.

    Au.D. students who successfully complete the Comprehensive Examinations and Capstone Research I may advance to Doctoral Candidacy.

    The student must complete the Application for Advancement to Candidacy Form for Au.D. Students, available from on the web at http://www.gradschool.umd.edu/gss/forms/

    A student must be admitted to Doctoral Candidacy at least 6 months prior to completing their doctoral degree.

Step 5. Capstone Research Project is completed.

Step 6. Fourth-year clinical internship is completed.

Step 7. Application for Graduation

    At the beginning of the semester in which the student expects to graduate, the student should complete the electronic Application for Graduation. Failure to submit the Application for Graduation by the posted deadline results in a delay in Graduation.

    The Application for Graduation can be found at the website: http://www.gradschool.umd.edu/gss/forms/

    The schedule of Graduate School Deadlines is available at http://www.gradschool.umd.edu/deadlines/

    Additional forms must be completed during the final semester of graduate study that constitute approval of the program of study and verification of completion of the program of study. Forms for Au.D. candidates can be obtained from the Director of the Doctoral Program in Clinical Audiology or from the department’s shared drive.

Au.D./Ph.D. Dual Degree (See companion “Dual-degree Handbook”)

Step 1: Student completes all required coursework for the Au.D. Degree and most coursework for the Ph.D. degree.

Step 2: Student completes supplemental departmental examinations.

    Students must pass the Au.D. comprehensive examinations in order to advance to Au.D. Doctoral Candidacy.

    The student must complete the Application for Advancement to Candidacy Form for Au.D. Students, available on the web at http://www.gradschool.umd.edu/gss/forms/
A student must be admitted to Au.D. Doctoral Candidacy at least 6 months prior to completing their doctoral degree.

**Step 3:** Student completes Candidacy Research (HESP 898) and the full-time “4th-year” Clinical Internship Residency, and earns the Au.D. Degree.

Au.D./Ph.D. students may complete the clinical internship during years 4, 5, or 6 of graduate study. Upon successful completion of coursework, Au.D. comprehensive examinations, candidacy research, and the full-year clinical internship, students will be awarded the Au.D. degree. Appropriate forms must be completed by the student in order to receive the degree, available on the Graduate School website [http://www.gradschool.umd.edu/gss/forms/](http://www.gradschool.umd.edu/gss/forms/)

**Step 4:** The student applies to the Graduate School for the HESP Ph.D. program to establish the record with the Graduate School.

**Step 5:** The student completes the Ph.D. departmental qualifying examinations (Comprehensive Examinations).

**Step 6.** Student Advances to Ph.D. Doctoral Candidacy.

Au.D./Ph.D. students must successfully complete the Comprehensive Examinations and the Candidacy Paper to advance to Doctoral Candidacy.

The student must complete the Application for Advancement to Candidacy Form, available on the web at [http://www.gradschool.umd.edu/gss/forms/](http://www.gradschool.umd.edu/gss/forms/)

A student must be admitted to Ph.D. Doctoral Candidacy at least 6 months prior to completing their Ph.D. degree.

**Step 7.** Dissertation is successfully proposed.

**Step 8.** Dissertation is successfully defended and submitted.

**Step 9.** Application for Graduation

At the beginning of the semester in which the student expects to graduate, the student should complete the electronic Application for Graduation. Failure to submit the Application for Graduation by the posted deadline results in a delay in Graduation.

The Application for Graduation can be found at the website: [http://www.gradschool.umd.edu/gss/forms/](http://www.gradschool.umd.edu/gss/forms/)

The schedule of Graduate School Deadlines is available at [http://www.gradschool.umd.edu/deadlines/](http://www.gradschool.umd.edu/deadlines/)

Additional specific details regarding the completion of the doctoral degree, including the composition of the Doctoral Examination Committee, can be found at the website: [http://www.gradschool.umd.edu/gss/forms/](http://www.gradschool.umd.edu/gss/forms/)
University Deadlines for Graduation for Au.D. and Au.D./Ph.D. students

The University has strict deadlines, which must be followed to ensure timely graduation for those students who are completing a dissertation. University paperwork that must be completed and filed in order for a student to graduate consists of the following forms:

Au.D. Students and Au.D. phase for dual-degree students:

1. **Diploma Application**: due the second week of the semester during which graduation is expected

2. **Certification of Au.D. Degree**: due approximately three weeks before commencement. See Graduate School website for specific deadlines
   
   http://www.gradschool.umd.edu/current_students/deadlines_for_graduate_students.html

Ph.D. phase for dual-degree students:

1. **Nomination of Dissertation Committee Form**: due six weeks after the beginning of the semester during which graduation is expected

2. **Report of the Oral Examining Committee** (for dissertations): due three weeks before the end of the semester in which graduation is expected

   Specific dates for University paperwork deadlines are published each semester in the Schedule of Classes and are available on the website for the Graduate School:

   http://www.gradschool.umd.edu/current_students/deadlines_for_graduate_students.html

*Failure to meet University deadlines will typically result in delay of graduation for one full semester.* During that semester, the student will be required to enroll for a minimum of one credit of registration.

**PLEASE MEET ALL DEADLINES!**

Students are responsible for delivering paperwork to the required campus offices. The department cannot deliver materials for students.

**Reminder**: Graduate school regulations require all students to carry *at least one credit of enrollment during the semester in which graduation is anticipated*, regardless of the number of credits already accumulated. Students should plan accordingly. Failure to be enrolled for at least one credit during the semester of graduation may prevent timely receipt of the diploma.
Academic Integrity

"The University is an [intellectual] community. Its fundamental purpose is the creation and dissemination of knowledge. Like all other communities, the University can function properly only if its members adhere to clearly established goals and values. Essential to the fundamental purpose of the University is the commitment to the principles of truth and academic honesty. The Code of Academic Integrity is designed to ensure that the principle of academic honesty is upheld. While all members of the University community share this responsibility, The Code of Academic Integrity is designed so that special responsibility for upholding the principle of academic honesty lies with students.” (from the Graduate Catalog; http://www.gradschool.umd.edu/catalog/academic_record.htm)

Academic dishonesty includes, but is not limited to: cheating (including use of unauthorized materials or study aids in any academic exercise), fabrication, and plagiarism. The Department of Hearing and Speech Sciences considers charges of academic dishonesty very seriously. Violations of the Code of Academic Integrity may result in expulsion of the student from the graduate program.

Department of Hearing and Speech Sciences
Faculty and Interests

Information on current faculty and adjunct faculty members and their areas of interest can be obtained on the department website: http://www.hesp.umd.edu

The “Faculty/Staff” section contains links to profiles of individual faculty members. Further information on ongoing research projects can also be found under the “Research” section of the website.
Course Descriptions: Required and Elective Courses in the Doctoral Program in Clinical Audiology

Courses Offered in the Department of Hearing & Speech Sciences, University of Maryland, College Park

HESP 300. Introduction to Psycholinguistics (3).
Prerequisite: HESP 202.
An introduction to current theories of language and an investigation of their relationship to human communication behavior. Survey of the experimental literature relating to this question.

HESP 311. Anatomy, Pathology and Physiology of the Auditory System (3).
Prerequisite: HESP 202.
Gross anatomy of the ear and pathways for transmission of sound energy through the peripheral and central auditory system. Causes, development and effects of pathological conditions contributing to temporary or chronic hearing impairments.

HESP 400. Speech and Language Development in Children (3).
Prerequisite: HESP 300.
Analysis of the normal processes of speech and language development in children.

HESP 403. Introduction to Phonetic Science (3).
Prerequisite: HESP 305.
An introduction to physiological, acoustic and perceptual phonetics: broad and narrow phonetic transcription; current models of speech production and perception.

Prerequisite: HESP 311.
Fundamentals of hearing, including the physics of sound, psychophysical procedures used in measurement of auditory sensation and perception, and topics in psychological acoustics.

HESP 411. Introduction to Audiology (3).
Prerequisite: HESP 311.
An introduction to the field of audiology. Evaluation and remediation of hearing handicaps.

Prerequisite: HESP 402, HESP 411.
The principles underlying the treatment of speech, language and hearing disorders in children and adults; supervised observation of clinical activities.

HESP 418. Clinical Practice in Speech-Language Pathology and Audiology (3).
Prerequisite: HESP 417. Repeatable to 6 credits.
Supervised observation with some direct participation in clinical methods for the treatment of disorders of articulation, fluency, child and adult language; evaluation and habilitation/rehabilitation of hearing impaired children and adults.
HESP 420. Deafness and Sign Language (3) (previously 498a).
Introduction to ASL and deaf culture.

HESP 498. Seminar (3).
Prerequisite: permission of department. Repeatable to 6 credits if content differs.
Selected topics pertaining to human communication and its disorders.

HESP 499. Independent Study (1-3).
Prerequisite: permission of department. Repeatable to 6 credits if content differs.
A directed study of selected topics pertaining to human communication and its disorders.

HESP 600. Instrumentation in Hearing and Speech Sciences (3).
Prerequisite: permission of department.
Types and principles of operation of electronic equipment used in the hearing and speech sciences.

HESP 602. Neurological Bases of Human Communication (3).
Prerequisite: permission of department.
Basic neurology as it pertains to anatomical and physiological substrates of speech and language.

HESP 604. Acoustical and Perceptual Phonetics (3).
Prerequisite: permission of department.
Principles and current laboratory techniques in analysis of the acoustical characteristics of the speech signal and discussion of models of speech perception.

HESP 606. Basic Hearing Measurements (3).
Prerequisite: HESP 411 or equivalent.
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.

HESP 610. Aphasia (3).
Language problems of adults associated with brain injury.

HESP 615. Counseling in Communicative Disorders (3).
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 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.

HESP 616. Language Disorders in Children (3).
Prerequisite: HESP 400 or equivalent or permission of department.
Theoretical, empirical and clinical perspectives on language disorders in children.

HESP 620. Phonological and Articulatory Disorders (3).
Assessment and treatment of disorders at the phonological and articulatory levels of language and speech.
HESP 630. Electrophysiological Measurements (3).
Prerequisite: HESP 606 or permission of department.
Principles and techniques of physiological and electrophysiological measures of auditory function.

HESP 632. Medical Audiology (3).
Overview of auditory pathologies, and their assessment and management in the medical setting.

Comprehensive examination of the anatomy and physiology of the peripheral and central auditory and vestibular systems. Both afferent and efferent pathways will be presented. Applications of basic auditory neuroscience to contemporary clinical audiology practice will be highlighted.

HESP 635. Aural Rehabilitation/Habilitation (3).
Principles, methods and procedures for aural rehabilitation/habilitation in children and adults.

HESP 636. Geriatric Audiology (3).
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.

HESP 639. Special Topics in Hearing and Speech Sciences (1-3).
Prerequisite: permission of department. Repeatable to 6 credits if content differs. Intensive coverage of selected topics of current interest.

HESP 645. Pediatric Audiology (3).
Prerequisite: HESP 606 or permission of department.
Evaluation and treatment of hearing-impaired children.

HESP 646. Educational Audiology (3).
Examination of historical and current trends influencing educational programming for hearing-impaired children, communication options for severely and profoundly hearing-impaired children, and the role of the audiologist in the educational setting.

HESP 649A and B. Clinical Practice in Audiology (1-3).
Prerequisite: permission of instructor. Repeatable to 15 credits.
Supervised training in the application of clinical methods in the diagnosis and treatment of hearing disorders.

HESP 700. Hearing Aids I (3).
Principles, methods and procedures for selection, fitting, calibration and management of amplification systems for hearing-impaired adults.

HESP 701. Hearing Aids II (3).
Advanced issues in amplification for hearing-impaired individuals, including hearing aid selection using digital signal processing algorithms, hearing aid selection for children, and implantable amplification devices.
HESP 704. Audiology Practice Management (3).
Basics of clinical business management both in the context of private practice in Audiology and as a department in a healthcare corporation and review of ethical and legal issues governing the practice of audiology.

HESP 706. Advanced Clinical Audiology (3).
Prerequisite: HESP 606 or equivalent.
Advanced clinical and experimental methods of evaluating the peripheral and central auditory system using acoustic stimuli. Procedural consideration and interpretation of test results.

HESP 708. Independent Study (1-6).
Prerequisite: permission of instructor. Repeatable to 6 credits.
Individual research projects under guidance of a faculty member.

HESP 710. Industrial and Environmental Noise Problems (3).
Prerequisite: permission of instructor.

HESP 712. Cochlear Implants and Other Implantable Technologies (3).
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.

HESP 722. Psychoacoustics (3).
Experimental techniques in the investigation of problems in audiology.

HESP 724. Research Design (3).
Prerequisite: a course in basic statistics.
Evaluations of research designs, critique of published articles and student involvement in designing experiments on assigned topics.

HESP 729. Advanced Clinical Practice in Audiology (1-8).
Prerequisite: HESP 649 and permission of instructor. Repeatable to 8 credits.
Clinical internship in selected off-campus facilities.

HESP 730. Vestibular-ocular Function and Assessment (3)
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.

HESP 788. Research Externship (1-3).
Prerequisite: permission of instructor. Repeatable to 6 credits.
Off-campus research experience with departmental affiliates at National Institutes of Health, Walter Reed National Military Medical Center, and other regional institutions.


Revision: July 2014

HESP 829. Clinical Internship Residency (6 credits only).
Prerequisite: permission of instructor. Repeatable to 18 credits.
Off-campus, full-time clinical internship at regional and national institutions.

HESP 848. Seminar in Audiology (3).
(Topics of recent Seminars: Cochlear Implants, Tinnitus, Signal Processing)
Prerequisite: permission of instructor. Repeatable to 6 credits.

HESP 849. Capstone Research I (2).
Prerequisite: HESP 724

HESP 859. Capstone Research II (2).
Prerequisite: HESP 849. Repeatable to 6 credits.

HESP 889. Doctoral Candidacy Research (1-6).

HESP 898. Pre-Candidacy Research (1-8).

HESP 899. Doctoral Dissertation Research (1-8).

Required/Elective Courses Offered at the University of Maryland, College Park

EDMS 645  Quantitative Research Methods I (3) (Au.D. and Ph.D. tracks)
EDMS 646  Quantitative Research Methods II (3) (Ph.D. track only)
NACS 618  The Classics in Neuroscience and Cognitive Science (3)
NACS 641  Introduction to Neuroscience (3)
NACS 651  The Neuroscience of Cognition (3)
PSYC 764  Comparative Neuroanatomy (3)
BIOL 600  Scientific Ethics (2)
BIOL 636  Hearing (3)

Electives Courses Offered at the University of Maryland, Baltimore

CIPP 909  Responsible Conduct of Research (2)
GERO 672  Issues in Aging Policy (3)
GERO 711  Biology of Aging (3)
GERO/PSYC 786  Psychology of Aging (3)
GERO/PREV 681  Epidemiology of Aging (3)
GPLS 604  Neuropharmacology (3)
GPLS 633  Pathways in Neuroscience (3)
GPLS 641  Introduction to Neuroscience (3)
GPLS 705  Basic Human Genetics (3)
GPLS 708  Clinical Genetics I (3)
GPLS 711  Genetic Epidemiology (3)
GPLS 778  Recording Neural Activity: Modern Methods (3)

Revision: July 2014
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Appendix I: American Board of Audiology Certification Requirements

Applicant Categories

Individuals seeking Board Certification in Audiology must demonstrate, through submission of appropriate documentation, evidence of initial mastery of core elements of audiologic practice. This evidence is presented through one of the following applicant categories: Board Certification, Board Certification through Reciprocal Eligibility, and Provisional Board Certification. All applicants must attest that they will abide by the ABA Code of Ethics. They must also attest that any licensure/registration that they hold is in good standing and that they will abide by the regulations applicable to such licensure/registration.

Board Certification

For applicants who have completed all requirements for Board Certification but do not hold a current state license/registration in audiology.

A. All applicants must have earned a doctoral level degree in audiology from a regionally accredited college or university. ABA requires submission of an official transcript confirming an applicant’s graduate degree in audiology as part of the application process. Transcripts must be submitted directly from the institution to ABA. The transcript must include the date that the graduate degree was posted.

B. Applicants must document achievement of a passing score on a national examination in audiology as required by the ABA.

C. Applicants must document completion of a minimum of 2000 hours of mentored professional practice within a 2-year period. Applicants applying in this category must document their professional practice experience. The mentor must verify this experience and make a recommendation for the granting of Board Certification. The mentor must possess a current state license/registration to practice audiology or hold current ABA certification.

D. Applicants must submit appropriate documentation, fees and signed affirmations regarding the truthfulness of information, adherence to the ABA Code of Ethics, and adherence to state licensure/registration regulations for the practice of audiology (where applicable) or other regulatory agency through which you are authorized to practice audiology.
Appendix II: Outside Placement Sites for HESP Graduate Students in Audiology

Please note: The following list is subject to change.

I. Hospitals

Baltimore VA Hospital, Baltimore, MD
Children’s National Medical Center, Washington, DC
Department of Otolaryngology - Georgetown University Medical Center, Washington, D.C.
Fort Belvoir Army Medical Center, Alexandria, VA
Johns Hopkins Medical Institute, Baltimore, MD
Kennedy/Krieger Institute, Baltimore, MD
Kimbrough Ambulatory Care Center, Ft. Meade, MD
National Institutes of Health, Bethesda, MD
St. Agnes Hospital, Baltimore, MD
University of Maryland Medical Center, Baltimore
VA Medical Center, Washington D.C.
Walter Reed National Military Medical Center, Bethesda, MD
Washington Hospital Center, Washington DC

II. Community-based Public and Private Clinics

Anne Arundel County Health Department, Annapolis, MD
Baltimore Hearing and Speech Agency, Baltimore, MD
ENTAA Care, various sites in Maryland
Greater Baltimore Medical Center, Baltimore, MD
Howard County Diagnostic Center, Columbia, MD
Physicians’ Audiology Center, Rockville, MD
Physicians Hearing Center, Falls Church, VA
Treatment and Learning Centers, Rockville, MD
Washington Hearing and Speech Society, Washington, DC

III. Schools

Anne Arundel County Public Schools, MD
District of Columbia Public Schools, Washington, DC
Fairfax County Public Schools, VA
Kendall Demonstration Elementary School - Gallaudet University, Washington, DC
P.G. County Parent Infant Program, MD
River School, Washington, DC