College of Health Sciences

Rehabilitation and Health Sciences PhD Program

Rehabilitation and Health Sciences PhD Program Student Handbook 2026

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CHAPTER ONE: GETTING STARTED

INTRODUCTION

This handbook is designed to provide prospective and current students with basic information concerning graduate study in the Rehabilitation and Health Sciences PhD (RHB) Program at The University of Kentucky. Topics such as programs of study, admission standards and procedures, financial aid, and graduate faculty are covered. No attempt has been made to include all of the policies governing the various degree programs. Please consult the Graduate School's web site at http://gradschool.uky.edu/ for additional information. Current information concerning tuition costs and salaries for Teaching and Research Assistants (TA/RA) can be found at https://gradschool.uky.edu/types-assistantships

Detailed and current information regarding policies and procedures for graduate study at the University of Kentucky can be found at The Graduate School website (http://gradschool.uky.edu/). **All information currently on the Graduate School Website supersedes any information in this handbook.**

Please investigate and look through the graduate school website to complement the information provided in this basic handbook. If you have questions which are not answered in these materials, e-mail the RHB PhD Program - Director of Graduate Studies: Dr. Esther Dupont-Versteegden

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COLLEGE OF HEALTH SCIENCES MISSION STATEMENT

The mission of the University of Kentucky College of Health Sciences (CHS) is to help the people of the Commonwealth of Kentucky and beyond attain the highest level of health possible. We fulfill our mission by educating the next generation of health care practitioners through education, innovative research, healing and compassionate care.

REHABILITATION AND HEALTH SCIENCES PhD PROGRAM MISSION STATEMENT

The mission of the Rehabilitation and Health Sciences PhD Program is to fulfill a leadership role in addressing the rehabilitation and health needs of individuals in the Commonwealth of Kentucky and beyond through research, education and service.

Program
The interdisciplinary PhD program is designed to produce research and academic leaders of diverse backgrounds in the rehabilitation and health sciences. The University of Kentucky College of Health Sciences offers the program in collaboration with Eastern Kentucky University and Western Kentucky University.

Students
Students in the program have the unique opportunity to study with faculty from the different health professions offered in the participating institutions, such as athletic training, communication science and disorders, occupational therapy, physical therapy, physician assistants and health services research, and take courses from faculty specialized in these disciplines.

Distance technologies are used to deliver some portions of the program, thus making it more widely accessible. However, all classes are taken in real time and the program is not offered completely online.

REHABILITATION and HEALTH SCIENCES PhD PROGRAM LEARNING OBJECTIVES

Rehabilitation and Health Sciences

- Demonstrate knowledge of a broad array of systems within which rehabilitation and health services are provided.
- Understand and value cooperative interdisciplinary practices.
- Demonstrate an understanding of the theoretical underpinnings of assessment, intervention, and program development.
- Demonstrate competence in the provision of service and instruction across diverse populations.
- Analyze the relationship between rehabilitation and health sciences content and disciplinary content.

Disciplinary Knowledge

- Demonstrate knowledge of the theoretical underpinnings of a discipline.
- Evaluate the discipline's body of knowledge.
- Identify knowledge gaps in a topical area and design and carry out independent and original research to address gaps.
- Demonstrate the ability to generate research questions within discipline.

Research and Scholarship

- Demonstrate expertise in a research methodology adequate to design and carry out independent and original research.
- Develop the ability to participate in a variety of research approaches.
- Design studies using a variety of research models, including a collaborative interdisciplinary focus.
- Demonstrate understanding and application of the ethics of research.
- Demonstrate skills in manuscript review and revision.

- Demonstrate a habit of dissemination of scholarship.

Academic Environment

- Understand the history, structure, function, and governance of higher education.
- Be able to plan, carry out, and evaluate a college level course with minimal supervision by the instructor.
- Demonstrate awareness of program improvement and curriculum development processes, including for diverse populations.
- Demonstrate abilities to identify funding sources, and prepare, review, revise, and implement grant proposals.
- Provide academic service through consultation, professional leadership, and participation in policy formulation within the student's area of interest or discipline.
- Understand and plan for career development within the promotion and tenure process, as well as other areas of employment.
- Understand the issues surrounding responsible conduct in research and ethics.

REHABILITATION SCIENCES LEARNING OUTCOMES

Program objectives are tailored to reflect individual student scholarly and professional goals through work with the Advisory Committee, Chairpersons, and course work.

APPLICATION PROCESS

1. Individuals applying for admission must hold a professional or post-professional master's degree. Eligibility for licensure or clinical certification in Communication Sciences & Disorders, Athletic Training, Occupational Therapy, Physical Therapy, or Physician Assistant is encouraged, but not required for admission into the program. Those with basic science graduate degrees and interests are also welcomed to apply and will be considered equally for admission. Acceptance into the program is dependent upon identifying and matching your area of research interest with an RHB faculty member willing to serve as your PhD studies program mentor.
2. Applicants must apply to the University of Kentucky Graduate School.
3. The RHB Program accepts applications for a fall semester start date. All application materials must be submitted prior to the fall application deadline.
   - Application deadline for Fall Admission is June 1 for domestic students and March 15th for international students.
   - Applications for Spring admissions will be evaluated on a case by case basis
4. Applicants must submit the following materials:
   - Completed Graduate School Application - (Online application system) http://gradschool.uky.edu/admissions
   - Application Fee (paid after completion of on-line application).
   - Official transcripts from all post-secondary institutions attended (2 copies each)
   - Official TOEFL scores (For international students only).
   - Three (3) letters of recommendation.
   - Comprehensive resume or Curriculum Vitae.
   - One-page essay detailing your professional goals and reasons for choosing the interdisciplinary program of study and your specific area of research interest.
5. Applicants will be asked to interview with faculty members as part of the application process. Following receipt of your materials by both The Graduate School and the RHB Program, applicants will be asked to come to campus to interview with faculty within the program.
6. Because we believe that a successful doctoral experience depends on faculty guidance, an RHB PhD Program Faculty Member must agree to serve as an applicant's primary mentor before an applicant can be accepted into the program. Once an RHB faculty member has agreed to serve as a primary mentor, the applicant will receive acceptance letters from both The Graduate School and RHB PhD Program.

CONTACT INFORMATION FOR THE APPLICATION PROCESS

Esther Dupont-Versteegden, PhD
RHB Doctoral Program Director/Director of Graduate Studies
University of Kentucky - College of Health Sciences
Room CTW210E
900 South Limestone
Lexington, KY 40536-0200
Phone: (859) 218-0592
Email: **esther.dupont@uky.edu**

The Graduate School
University of Kentucky
101 Gillis Building
Lexington, KY 40506
Phone: (859) 257 4613
Admissions Officers in the graduate school are assigned by applicant's last name as follows:

A-G : Emily Shearer

H-O : Morgan Edwards

P-Z : Marthann Sheldon

THE GRADUATE SCHOOL

For greater detail and further information regarding graduate school policies, please visit the following websites:

- The Graduate School Web Page: http://gradschool.uky.edu/
- Academic Calendar: http://www.uky.edu/registrar/calendar
- Graduate Student Resources: http://gradschool.uky.edu/student-resources-0
- Graduate School Bulletin: http://bulletin.uky.edu/index.php
- Graduation Information: http://www.uky.edu/Commencement/

Graduate Assistantships and Financial Aid

Tuition and Fees
Information on tuition and fees, along with payment instructions, can be found here: https://gradschool.uky.edu/tuition-scholarship-information

Graduate Assistantships
Graduate assistantships are available through each of the disciplines within the RHB PhD Program. Following review of application materials and the interview process, consideration will be made for limited graduate assistantships within each of the disciplines.

Students receiving a GA, RA or TA assistantship should review the following to better understand their award: http://gradschool.uky.edu/assistantships

Clinical Doctoral Fellowships
Clinical Doctoral Fellowships provide funding for doctoral students admitted to the RHB PhD program. Students work clinically and in exchange are provided a fellowship that includes tuition, stipend, and health insurance. The Fellowships allow students to attend the program full-time. In general, full-time students finish the program faster and have more productive curricula vitae upon graduation as compared to part-time students. The Fellowships allow us to attract the best students and broaden the opportunities available for future clinical leaders and academic scholars while providing highly motivated, cost efficient clinicians into clinical settings. Advantages of these Fellowships to hiring institutions include: sharing knowledge, providing clinical experiences, and developing methods of translating current research into the clinical setting.

Scholarships
Scholarships available for University of Kentucky students can be found at the following sites:

- Graduate School Scholarships: http://gradschool.uky.edu/tuition-scholarship-information
- For other forms of assistantship, please see the University of Kentucky Scholarship website: http://www.uky.edu/financialaid/scholarships

University of Kentucky WILDCARD ID Card

Once a student has been admitted into the Rehabilitation Sciences PhD Program, prior to the start of class, they must obtain a WILDCARD ID. Please see the following website for further information and ID office location.
http://www.uky.edu/Police/UKID/faq.html

University of Kentucky Medical Center ID

Students are required to obtain a Medical Center ID that they must wear at all times. IDs are issued through the Security Office located in Pavilion A of the Chandler Medical Center. See Form Appendix: B for the appropriate form which must be completed PRIOR to obtaining the ID.

Student Health Insurance

All degree seeking students are eligible for student health insurance. All students who are classified as a GA, RA, TA or other Fellowships are automatically signed up for student health insurance. If a student does not need insurance they are asked to complete an “Insurance Declination Form”.

It is the responsibility of all non-funded students to pay for their own student health insurance. A detailed list of eligibility, services and fees are located at the following website: http://www.ukhealthcare.uky.edu/uhs/

Parking Information

Students will be required to obtain their own parking permit. Parking information can be found at: http://www.uky.edu/Parking/

Housing Information

The following website is available to assist graduate students in finding housing: http://www.uky.edu/Housing/graduate/index.html

HELPFUL RESOURCES AT THE UNIVERSITY OF KENTUCKY

The University of Kentucky Library System
Librarian **Carla Cantagallo** is dedicated to assisting distance students with library resources. She is familiar with the RHB PhD Program and is a valuable resource.

Her contact information is:
Phone: 859 218 1240 Fax: 859 257 0505 Email: carla@uky.edu
Address: 2nd floor, North Wing, Young Library

The library system maintains a humanities, social sciences and life sciences collection in William T. Young Library as well as subject libraries in several colleges and departments around campus, with each library holding materials related to the particular discipline it serves. These materials and their locations are listed in InfoKat, the Libraries' online catalog.

Library website link: http://www.uky.edu/Libraries/index.php

- Agricultural Information Center
- Audio Visual Services (Young Library)
- Design Library
- Distance Learning Library Services
- Education Library
- Hub @ WT's Information Commons (Young Library)
- Law Library
- Lucille Caudill Little Fine Arts Library and Learning Center
- Medical Center Library
- Science Library
- Shaver Engineering Library
- Special Collections and Digital Programs
- William T. Young Library

Inter-Library Loan
Interlibrary Loan attempts to fill gaps in the UK Libraries collection. If the collection lacks items needed for research, University of Kentucky faculty, emeritus faculty, students, and staff may be able to obtain the books or photocopies of the articles needed for their research. The ILL staff will attempt to obtain the material from another library or document vendor. Please see the ILL website for this and more information and instructions for use: http://www.uky.edu/Libraries/page.php?lweb_id=8

The medical center also has an Interlibrary Loan. If the journal you are seeking is held through the Medical Center, you will need to use their Interlibrary Loan system. Please see the Medical Center's ILL website for this and more information and instructions for use: http://libraries.uky.edu/libpage.php?lweb_id=64&llib_id=12

End Note
EndNote® is a powerful software application that is used to manage personal databases of citations from sources such as journals or books. EndNote can be used to search most of the UK Libraries databases. Selected database references can be easily downloaded into EndNote. Bibliographies and manuscripts can be created using EndNote, and then formatted in a wide range of publication styles including APA, MLA, Chicago, and most major medical journals.

A campus-wide EndNote site license allows all authorized University of Kentucky faculty, students, and staff to download the latest version of EndNote from the following URL: http://libguides.uky.edu/endnote

Authentication, via Link Blue, is required to download the software. The easiest way to find the EndNote link on the download page is to type the word "EndNote" in the gray search box. Be sure to comply with all legal provisions required by the site license. Information taken from EndNote Tutorial: University of Kentucky Libraries: https://libguides.uky.edu/EndNote

Human Subject Training
Human Subject Training is required if you are to submit an IRB to UK ORI. Information about ORI and how to complete your training can be found at the link below: http://www.research.uky.edu/ori/

Scheduling Meetings
One challenge during the doctoral experience is trying to schedule several faculty for committee meetings. Two suggestions for assisting with that process are the Meeting Wizard and Doodle. Both online scheduling programs provide an easy way to ask faculty to respond when coordinating meeting times

- Doodle http://doodle.com/

Directions for Students Taking Classes at EKU
Registration:

- Apply as a non-degree seeking student to the EKU graduate school using the online form at http://gradschool.eku.edu/apply. You will need to note on the application that you are a UK RHB PhD student and pay a one-time $35 application fee. Please notify Dr. Camille Skubik-Peplaski and Dr. Dupont-Versteegden (Director) that you are planning to register for a course at EKU by emailing them at camille.skubi-peplaski@uky.edu and esther.dupont@uky.edu.
- Register at EKU for course(s). Please note that registration must be completed two weeks before the start of classes, so start the registration process as early as possible. Direct questions about registration to Holly Argo at 859-622-2316.
- Director of the RHB PhD program will send a list of students each semester taking an EKU course to Susan Herrick. Susan will coordinate with Lesley Cash (Lesley.cash@uky.edu) to ensure that the students are enrolled in consortium 1001 (CONS1001). CONS 1001 is a temporary placeholder ensuring that they

are receiving credit for course at EKU. This is important for several reasons. It ensures that the student is enrolled as a full-time student so assistantship and fellowship funding can be processed correctly. Also, it ensures that the student is listed as a full-time student if necessary for financial aid reasons.

- Students should submit a transfer of credit request when they submit their EKU transcript to the Graduate School. That form can be accessed here: https://ris.uky.edu/gs/StudentPortal/Login.aspx

Financial Aid:

- Student obtains the concurrent Consortium Agreement Form from the UK Financial Aid Office at 127 Funkhouser. The contact person at UK is Matt Massarone 859-218-1764. Student has their Advisor sign the form and then fax the form to EKU Financial Aid office with attention to Shelly Parks. The completed form is then returned to UK by the EKU financial aid office. The student can begin this process before registering at EKU but it will not be signed or processed until the student is registered.
- EKU bills the student for tuition. The student takes the financial aid awarded to them and pays EKU and/or UK.

If the Student is being paid via fellowship or assistantship:

- If a student is being paid via a fellowship or assistantship, i.e., someone at UK is paying for their tuition, they would notify the Director of the RHB PhD Program.
- The student submits the following to the CHS business office to Denise McCarthy dnotte0@email.uky.edu and cc the program director Esther Dupont-Versteegden Esther.Dupont@uky.edu:
  a. An itemized receipt of the student bill from EKU must be provided to the Business Office for tuition payment order submitted by the department.
  b. a memo stating the students name, amount of tuition, the semester, what course they are taking and where to send the payment to
- Business office submits payment request to the University Business Office.

At the completion of the course:

- Student obtains transcripts from EKU. It is their responsibility to send the transcript to the UK Graduate School.
- The student should contact Tim Emrick (timothy.emrick@uky.edu) in the graduate school to process the EKU transcript when received.
- Then they will need to contact Kaylee Lloyd in the Graduate School (KayleeLloyd@uky.edu) to update UK transcripts.

CHAPTER TWO: PROGRAM OVERVIEW

PROGRAM CURRICULUM

Listed below are the names and a brief description of each of the areas that must be fulfilled in the RHB PhD program. Where applicable, course numbers, names, and

catalog descriptions have been given for each of the areas. It is the responsibility of the student to keep an UPDATED program curriculum on file with the Director of Graduate Studies and their advisory committee. Each of these programs is tailored to the individual student and it is imperative that record of this program be on file in order to track progress being made. A copy of the Program of Study Template can be found in the Important Resources.

Rehabilitation Sciences Core Courses (9 credits)

RHB 701: Rehabilitation and Health Sciences Theories & Applications through the Life Span (3 cr)

Explores the theories that form a foundation for the rehabilitation and health sciences and are common to all the rehabilitation and health therapies. Included are theories specific to rehabilitation, attachment, adaptation and resilience, cognition, motor learning, empowerment, loss and grief, psycho-immunology, and societal responses to stigmatized groups. Theories are applied to rehabilitation and health care practice and research design across the life span.

RHB 714: Critical Appraisal of Research in Rehabilitation and Health Sciences (3 cr)

This course introduces the student to critical appraisal of all forms of research in the Rehabilitation and Health Sciences. The purpose is to further develop the student's competence in carrying out and evaluating research. The student will develop the skills necessary to find, critically evaluate, and synthesize the available research.

RHB 720: Research in Rehabilitation and Health Sciences (3 cr)

This course is designed to provide students with a critical review of current practices in research methodologies in the rehabilitation and health sciences. Students will investigate the expected outcomes of various research methodologies and analytic strategies.

Rehabilitation and Health Sciences Professional Seminars (5 credits)

Students are required to take RHB 771 - Research Seminar twice for 1 credit. RHB775: Responsible Conduct in Research and Ethics is also required by the program. Students must choose 2 additional Seminars at 1 credit each for a total of 5 credits

RHB771: Research Seminar (1 credit per spring semester; has to be taken twice for 2 credits total)

This course is designed to provide a forum in which the students can present their dissertation research or proposed research ideas and receive feedback on their research from faculty and fellow students. In addition, faculty members from each of the disciplines present their research so students can appreciate the breadth and scope of research currently being conducted in the RHB program.

RHB772: Academia and Beyond (1 credit)

This course is designed to provide students with information related to working in higher education and other professional paths. Students will become aware of the issues in

higher education such as the process of promotion and tenure, diversity, equity and inclusion issues, work-life balance and commercialization. The students will develop a detailed career plan, including a diversity statement.

RHB773: Introduction to Grant Writing (1 cr)
This course is designed to introduce students to the process and product of grant writing. Students are made aware of the agencies and foundations that support research, training, and special grant opportunities related to rehabilitation and health sciences and the specific disciplines.

RHB774: Issues in Teaching & Learning in Higher Ed. (1 cr)
In this course students discuss pedagogical issues in higher education in general and in the rehabilitation and health sciences specifically. It is intended to serve as preparation for the student's teaching apprenticeship and focuses on didactic and clinical instruction.

RHB775: Responsible Conduct in Research and Ethics (1 cr)
The purpose of this course is to stimulate thinking and discussions about the ethical dilemmas facing research in the rehabilitation and health sciences today. The underlying assumption is that by discussing the many facets of realistic ethical challenges, we may each respond in the most thoughtful and appropriate manner allowed by the situation.

Research Methodologies (minimum 6 credits)
Students will be required to complete a minimum 6 credits of courses pertaining to research methodologies.

Examples of such courses are:
STA 671 Regression and Correlation
STA 672 Design and Analysis of Experiments
CPH 664 Design and Analysis of Clinical Trials
EDS 633 Single Subject Research Design
BSC 625 Fundamentals of biostatistics for clinical and translational science
* STA 570: Basic Statistical Analysis is a prerequisite for most statistics courses.

Area of Specialization (minimum 12 credits)
Students will be required to complete at least 12 credits of coursework pertaining to their area of specialization. Individually designed by the student in direct consultation with the Chair and PhD Program Advisory Committee of the student. Professional discipline specific coursework is an opportunity for the student to gain in depth knowledge of a topic of interest within their respective field of research. These courses may be the form of independent studies and can be tailored to the student's specific needs but can also be existing classes.

Teaching Apprenticeship (minimum 2 credits)
RHB 787: Teaching Apprenticeship in Rehabilitation and Health Sciences*

The teaching apprenticeship involves the study of instructional methods in higher education including development of syllabi, class presentations, and examinations. Emphasis on classroom dynamics and innovative techniques for instruction will be made.

*Teaching requirements are individually designed based on the student's past teaching experience. Please see the appropriate form at this link: Teaching Apprenticeship Document. The Teaching Apprenticeship Document can be found here Important Resources.

Research Apprenticeship (minimum 6 credits)
RHB 789: Research Apprenticeship in Rehabilitation and Health Sciences*
This apprenticeship involves in-depth study of a discipline specific topic under the direction of a member of the graduate faculty. Emphasis is on scientific methods including development of a research question, methodology, data collection and analyses. Students will complete a supervised research project during the course.
* One apprenticeship will be completed with the student's committee chair. One apprenticeship will be completed outside of the student's discipline. Please see the appropriate form at this link: Important Resources

Dissertation (minimum 4 credits)
RHB 767: Dissertation Residency Credit (2 credits per semester for a max. of 5 yrs.)
After successful completion of the qualifying examination, students are required to enroll in RHB 767 for two semesters. Students will remain continuously enrolled in this course every fall and spring semester until they have completed and defended their dissertation, for no more than 5 years.

GRADUATE CERTIFICATE PROGRAMS

A Graduate Certificate is an integrated group of courses that is designed to have a very clear and focused academic topic or competency as its subject area. Often, a Graduate Certificate may meet a clearly defined educational need of a constituency group, such as continuing education or accreditation for a particular profession; respond to a specific state mandate; or provide a basic competency in an emerging, usually interdisciplinary, area. A Certificate is not a graduate degree program (it is typically between 9 and 15 credits), but it does provide the student formal recognition of the mastery of a clearly defined academic topic.

Graduate Certificates are becoming an increasingly important component of the total range of graduate educational opportunities offered by a modern, comprehensive research university. Often, Certificates are pursued by students who are also pursuing a graduate degree in a traditional discipline, or who may already have earned one or more graduate degrees. For further information of the range of certificates available at UK, please see the following website through the Graduate School:
http://gradschool.uky.edu/graduate-certificates

A Graduate Certificate will satisfy the area of specialization requirement in the RHB Program.

DEVELOPMENT OF THE ADVISORY COMMITTEE

The student MUST form their Advisory Committee before completing 18 credits of courses and no later than one year prior to qualifying examinations. The purpose of this committee is to set program requirements, administer the qualifying examination, supervise the preparation of the dissertation, and administer the final examination.

The PhD committee must have a core minimum of four members:

Member I: Major Professor or Chair
Member II: Co-Chair*
Member III: Member of the Major Area
Member IV: Representative outside of the Department

Member I: Major Professor or Chair

The Chair of the Student's Advisory Committee is the person most often identified as responsible for the direction of the student's PhD program and dissertation. This committee member should be from the student's discipline, have expertise in that discipline and/or take the primary role in mentoring the student through the process. Even in those cases where there is significant overlap in scholarly expertise with the Committee Co-Chair, this committee member's title remains Chair. Terms commonly associated with this committee member include mentor and adviser. In unique circumstances any student may request a meeting with the RHB Program Director and/or the DGS if specific conditions would make alternative Chair and/or Co-chair assignments more optimal.

Member II: Co-Chair

*Unique to the Rehabilitation Sciences Doctoral program, the Committee Co-Chair must be a faculty member from an outside discipline but within the RHB program. The Committee Co-Chair may have significant overlap in scholarly expertise with the Committee Chair in some instances and very little overlap in expertise in other instances. Regardless of the degree of shared expertise with the Chair, the Co-Chair provides scholarly and/or procedural support to the doctoral student in a manner complimentary to that provided by the Chair. In those cases where there is considerable overlap in expertise, the Co-Chair may take a role in directing scholarly content and/or may take a role in directing the process. Committee role definitions should be made by the committee and student on a case-by-case basis. Even when this committee member provides significant overlap in expertise, this committee member's title remains Co-Chair.

Member III: Member from the student's major area

This member is most often another member from the student's major scholarly discipline.

Member IV: Representative outside of the RHB Doctoral Program/Department. Here the student selects a member who fills a role that augments the expertise of other committee members. This member contributes support to the student's work by providing support that is complimentary to the student's scholarly direction, e.g., research design, physiology, gerontology, etc.

Nothing in the descriptions of committee member titles above is designed to minimize the role of any member of the committee in supporting a doctoral student through the process of doctoral education. Committee member descriptions are provided simply to help the student and committee members achieve a healthy and productive outcome. While committee member titles should not change, contributions from particular committee members can be adjusted on a case-by-case basis.

Nothing in descriptions of committee member titles should influence authorship of later publications and presentations based upon the student's work. Membership on a dissertation committee does not automatically guarantee co-authorship on student's publications. The doctoral student should follow publication and presentation guidelines for contribution to determine authorship and not defer to committee titles. For guidelines on authorship see
https://www.uky.edu/chs/sites/chs.uky.edu/files/RHB_PHD/authorship_guidelines.pdf

All four committee members must be listed as Graduate Faculty at the University of Kentucky and at least THREE must possess FULL Graduate Faculty status. Graduate faculty status can be verified here: https://gradschool.uky.edu/graduate-faculty.
If a vacancy in the Advisory Committee does present itself, the student must fill the vacant position as soon as possible. Once the student has selected their advisory committee, and the members of the committee accept, the student will need to register the committee at the following website:
https://ris.uky.edu/cfdocs/gs/DoctoralCommittee/Selection_Screen.cfm

THE QUALIFYING EXAMINATION

Once the student has completed all of the course work required of the Rehabilitation Sciences Doctoral program (see Program Curriculum) the student is eligible to take the qualifying examinations. The purpose of a doctoral qualifying examination is to evaluate each student's comprehensive understanding of the field, and to ensure that each student is fully prepared to independently conduct (design, implement, analyze and write) original research.

Although doctoral students in the Rehabilitation Sciences PhD Program develop individualized plans of study, the faculty wish to ensure that each student completing the program participates in a standard qualifying examination process. Consequently, content of the qualifying examinations will be individualized to reflect the student's fields

of study, but the format will be consistent across students. That format is described below.

Exam Format

The Qualifying Examination will involve a combination of take-home, sit-down (in-house at the university) and oral examinations. The order of administration for these examinations will be determined by the student's Advisory Committee. The student will be given 2 take-home projects requiring creative application and integration of content in more real-world activities (e.g. write a review article, design a course in a given content area, prepare a grant proposal). The time limits for completion of the take-home examinations will be set by the committee, but may not exceed four weeks per project. The sit-down, in house, examination will cover content from the core courses in the curriculum and is a closed book exam. Questions for this portion of the examination will be developed by the student's Advisory Committee and may include some drawn from a pool of questions written by the program faculty and some written specifically for the student by members of the committee. After completion of both in-house and take-home examinations, the committee will read and evaluate the written responses and then conduct an oral examination not to exceed 2 hours. It is recommended that students be provided consistent feedback following completion of the written examination and prior to the oral examination. Advisory Committee members will provide feedback to the Co-Chairs stating whether the student's answers to the written examination questions were acceptable or unacceptable. One or both of the Co-Chairs will meet with the student to verbally inform the student if the answers to the written questions were acceptable or unacceptable based upon feedback from The Advisory Committee Members. The purpose of the feedback is to guide students but not specifically inform them of the content to address during the oral examination. The oral examination may be used to clarify or follow up on items from the written exams, but need not be limited to those topics.

Criteria for Evaluation of Qualifying Examination: Approved March 14, 2003

The Advisory-Examination Committee has complete responsibility for determining the acceptability of the comprehensive examination. The Committee can, however, request assistance from other faculty members in evaluating any or all of comprehensive examination questions. We recommend a Committee of 5 to ensure a majority related to specific voting activities. The criteria below are meant to serve as a guide for the review of students' responses to comprehensive examination questions. They provide the reviewers with a structure for evaluating the adequacy of the answers. This structure can be used in providing oral feedback to students about their performance on the examinations. For questions with multiple parts, the criteria can be applied to each individual part. The adequacy of the question, as a whole, can then be determined based on the merit of the contributing parts.

Individual questions or parts thereof will be rated by individual faculty members before the Advisory Committee meets. The following scale should be used: not acceptable; marginally acceptable; acceptable; better than acceptable; outstanding.

Content:

Accuracy
Information included in the answer is correct. Statements are based on factual information or accurate interpretation of the viewpoint of others. Assumptions or opinions of the student are clearly distinguished from factual information and the views expressed by others. There are no questions related to appropriate use.

Completeness
The answer is comprehensive. Each part of the question is answered satisfactorily. If the question has more than one part, information from each part is well integrated; and demonstrates appropriate recognition.

Depth
The answer has sufficient detail and rationale to support statements. The answer reflects a knowledge and synthesis of the supporting literature.

Documentation
When documentation is required, references are appropriate and timely to the content. There are a sufficient number of references to support the answer.

Style:

General: The writing should reflect what would be expected of a doctoral student. The responses to those questions for which access to resources is permitted should be of the quality seen in a journal "submission". Extemporaneous writing without access to resources should reflect adequate depth and synthesis.

Organization and Clarity
Content is structured logically. The writing is clear, understandable, and grammatically correct. The style reflects that expected of a journal submission.

Compliance with guidelines for the question
The student complies with requirements set forth by the writer of the question in terms of spacing, length and so on.

Use of a professional writing format
Format is consistent with departmental guidelines. Appropriate headings are used to organize text. These headings follow a consistent, logical format. References to the literature follow accepted guidelines agreed upon by the committee but most commonly include AMA or APA guidelines.

Oral:

The examinee demonstrates the ability to reflect and respond as expected for a doctoral student. Extemporaneous and planned presentations should be at the level of an instructor.

Organization and Clarity:

Content is structured logically and presented in an organized fashion. The verbal pattern should be clear, understandable, and grammatically correct.

Professional:

The scheduled or prepared oral presentation, as appropriate, should reflect that expected of an individual at a "Professional Meeting" presentation (Reference: Regional- invited presentation).

Ability to Respond to Questions:

The applicant should be able to appropriately defend a position and answer questions with referenced authority as expected at the level of an instructor.

Final Grade:

After completion of the examination, the committee members will determine whether the examinee passed or failed the examination based on the student's overall performance.

The qualifying exam MUST be approved by the Graduate School a minimum of two weeks prior to the date of the examination. The qualifying exam must be scheduled using the following link:
https://ris.uky.edu/cfdocs/gs/DoctoralCommittee/Selection_Screen.cfm

The Advisory Committee has 7 days to report the result of the examination. If the student does not pass their qualifying exams, the student can retake the examination a minimum of 3 months after their first attempt. A third attempt is not allowed.

All students accepted into the Rehabilitation and Health Sciences PhD program have five years to successfully complete their qualifying exams once they have started classes. Extensions can be given but must be submitted and approved by the Dean of the Graduate School.

Once the student has successfully completed their qualifying examinations, the student will be termed a Doctoral Candidate and will begin the dissertation phase of their education.

Students who have passed their qualifying exam need to sign up for 2 credits of RHB767-dissertation credits, for at least two semesters before they can defend their dissertation. Students cannot sign up for this course if they have not yet passed their qualifying exam. Students can sign up for 2 credits of RHB757-qualifying credits if they have finished all other classes but have not yet passed their qualifying exam. These credits ensure full time status for students.

THE DISSERTATION PHASE

Once the student has successfully completed their qualifying examinations they are permitted to propose their dissertation.

Dissertation Proposal Format

To be determined by committee.

Dissertation Formatting

All submissions of the dissertation are performed electronically via the Graduate School website. The following link has been posted on the Graduate School Website. Please follow the instructions on proper formatting of your completed document: http://gradschool.uky.edu/electronic-thesis-preparation

Dissertation Final Examination

The final examination (dissertation defense) is conducted by an expanded advisory committee and is chaired by the Director of Graduate Studies or a designee of the Director. The Dean of the Graduate School and President of the University are ex officio members of ALL final examination committees. The examination must be scheduled before hand and made open to the public.

Using the Notification of Intent Form: Notification of Intent to Schedule Final Examination, The Graduate School must be informed 8 weeks prior to the final examination date (step 3) At this time the Dean of the Graduate School will assign an Outside Examiner to the Advisory Committee.

A minimum of two weeks prior to the examination the Graduate School must be given the exact time and date of the exam. *Fill out the “Request for Final Doctoral Examination” (same link, step 4) at least 2 weeks before the scheduled date of final examination. All members of the advisory committee, including the outside examiner, must have at least **two weeks** to review the document and request changes.

The defense can take place NO LATER than 8 days prior to the last day of classes of the semester in which the student wishes to graduate.

The student is allowed five years to complete their dissertation defense following completion of their qualifying examinations. An extension of an additional five years may be requested but must be approved by the Dean of the Graduate School. Failure to complete all degree requirements within 10 years of passing the qualifying examinations will result in termination of degree candidacy.

Policy on Oral Graduate Committee-Based Defenses and Exams

All members of a student’s graduate committee are expected to attend and participate in any oral examination as part of the student’s graduate (Master’s or Doctoral) degree program. Traditionally, oral examinations are conducted with the student meeting with their committee while gathered in one physical location on campus. However, the need occasionally arises for virtual participation in the oral examination.

Virtual participation in oral examinations is allowed in the RHB Ph.D. program.

It is the responsibility of the Director of Graduate Studies for to ensure that the student and their full committee all agree on any type of exam format other than the standard in-person exam. The Graduate School must be notified of the modality by which the oral exam will be conducted: in- person, virtual or hybrid. This information must be included in the Comment field of the request for the QE or Final exam form and does not need to be approved in advance of the exam.

Adherence to the following technical requirements are mandated.

Technical Requirements

1. Prior to any oral exam, the student and Committee Chair coordinate with other committee members regarding the protocol for the exam.
2. All participants must join using university-adopted videoconferencing tools that allow for **fully interactive** audio and video communications along with screen-sharing capabilities, which must be maintained throughout the examination and any related discussion.
3. The use of audio-only communications is not permitted.
4. Participation merely by viewing a recording of the oral examination is specifically prohibited.
5. All members of the committee, on- or off-site, must participate in the final evaluation of the examination or defense; provisions must be made to record their votes and collect their signatures as necessary using the system approved by the Graduate School. This must be submitted to the Graduate School as soon as possible, but within 7 days of the exam.
6. The Committee Chair, or another non-student designee, shall be the host of the virtual meeting. A co-host may be assigned so that the event will not be interrupted by technical difficulties. The host should mute all participants (or ask participants to mute themselves) and ask the student to share their screen, if a presentation is involved, in order to make the presentation visible to all attendees. The host must also ensure that appropriate security precautions are taken to prevent any interruptions of the event.
7. Following any public portion of the defense, the host shall ask all non-committee members to leave the meeting, or the host may manually remove them. In programs where the defense has both a public and a private portion, the committee may then continue the event as outlined in their program protocols.
8. Once the committee has completed the examination of the student, the host shall place the student into the waiting room (or have the committee members use a breakout room) so the committee can conduct their deliberations in private.

The Committee Chair must have a secondary videoconferencing system

available as a back-up in in the case of technical difficulties. Cancellation of the examination should only occur in the case where both the primary and secondary back-up systems fail. If an examination must be rescheduled, it will be done without prejudice to the student. Since committee deliberations are an essential aspect of the examination, completing the examination and final discussion via email or other non-audiovisual means is not an option.

If the student or any committee member(s) have a disability that will be impacted by virtual participation, accommodations for participation must be provided.

CHAPTER THREE: REHABILITATION and HEALTH SCIENCES PhD PROGRAM PROCEDURES AND EXPECTATIONS

STUDENT MENTORING and ASSESSMENT

Each student is required to meet at least twice each year with their Advisory Committee. During these committee meetings the student needs to present to the committee: (1) an update on course/academic progress using the Program of Study template (https://www.uky.edu/chs/rehabilitation-sciences-phd-program/important-resources), (2) plans for future classes, (3) update on research activities, (4) update on dissertation research and writing. A summary of the meeting needs to be submitted to the Director of the RHB Program after each meeting.

Mentoring

Student are to complete the "Compact Between Graduate Students and Their Primary Mentors" found in https://www.uky.edu/chs/rehabilitation-sciences-phd-program/important-resources.

This Compact is meant to be a guide for the rights and responsibilities of students and mentors in the Rehabilitation and Health Sciences Program. This Compact needs to be carefully read, discussed and agreed upon with the primary mentor before October 15 of the first fall semester. It needs to be signed and returned to the Director of the RHB PhD Program by October 15. In the exceptional case that a student starts in the Spring semester this date is February 15.

Assessment of Student Performance

Students are to complete an Assessment of Performance Form every year. The evaluation form was designed to provide the student and committee members a foundation for assessing the student's progress in the Ph.D. Program. The evaluation consists of the following domains: 1) Program Objectives (rehabilitation and health sciences, area of specialization, and discipline specific knowledge base; research and scholarship; academic environment), 2) Scholarly and Professional Independence, and 3) Summary of Performance. The evaluation form can be found on the RHB Website: https://www.uky.edu/chs/rehabilitation-sciences-phd-program/important-resources

The form needs to be submitted to the Director before July 1 each year.

STUDENT ADVISING (rules herein are governed by the Graduate School and do not necessarily reflect those in the RHB PhD Program)

Upon admission to the Doctoral Program, each student will be assigned a preliminary "Faculty Mentor" who will serve as a provisional advisor (the Director of Graduate Studies will serve as the student's official advisor until a permanent advisor has been identified and formalized with the Graduate School). The Faculty Mentor, working in collaboration with relevant departments and the student, will develop an individually tailored specialization of study and research within the framework of the Doctoral Program curriculum. This may include the required completion of courses (for example research methods or statistics) in which the student is found to be deficient or that are necessary for successful completion of their intended research focus. By the end of the first year, each student should have selected a permanent Faculty Advisor. It is anticipated that by the end of the Fall semester of their second year in the Doctoral Program, each student will have formed a four member (minimum) Advisory Committee that must include at least three Doctoral Program Faculty, one of whom will serve as chair.

Students are expected to be respectful and responsive to communication from the Faculty Mentor and to meet with their advisor on a regular basis. The advisor's role is to assist the graduate student with any problems that may arise in their Doctoral Program, to monitor the student's progress, and to serve as an intellectual mentor during the student's tenure in the Doctoral Program.

Graduate students are not obligated to remain with or to retain their initial mentor and/or advisor. With the approval of the DGS, any student may change advisor at any time during their tenure in the Doctoral Program. At the end of the first semester in residence, the DGS will contact each student with regard to any desired change in advising. It is understood that changes will occur as students define or re-define their area of interest or otherwise change focus and direction in their graduate Doctoral Program.

GUIDELINES FOR DISMISSAL

University Guidelines - Scholastic Probation

When students have completed 12 or more semester hours of graduate course work with a cumulative GPA of less than 3.00, they will be placed on scholastic probation. Students will have one full-time semester or the equivalent (9 hours) to remove the scholastic probation by attaining a 3.00 cumulative GPA. If probation is not removed, students will be dismissed from the Graduate School. Students who have been dismissed from the Graduate School for this reason may apply for readmission after two semesters or one semester and the eight-week summer term. If they are accepted by the program, re-admitted students will have one full-time semester or the equivalent (9

hours) to remove the scholastic probation by attaining a 3.00 cumulative GPA. Exceptions to this policy can be made only by the Dean of the Graduate School. Students placed on scholastic probation are not eligible for fellowships or tuition scholarships and may not sit for doctoral qualifying examinations, or master's or doctoral final examinations.

Termination

The Dean of the Graduate School may terminate a student's enrollment in a particular program for the following reasons:

- Scholastic probation for three enrolled semesters
- Having failed twice the final examination for the master's degree or the qualifying examination
- In cases where the student's Advisory Committee recommends termination after the qualifying examination has been passed, the Graduate Faculty in that program will meet to vote on the recommendation. When the Graduate Faculty of that program concurs and the student dissents, the student will have an opportunity to meet with the Graduate Faculty of the program, after which a second vote will be taken and a final recommendation will be made to the Dean of the Graduate School.

Each program sets specific requirements and standards of performance, evaluative procedures and criteria, and procedures for terminations of all students. The student should be informed of these criteria at the time of enrollment by the Director of Graduate Studies of the program.

RHB Specific Guidelines

The RHB Doctoral Program expects its graduate students to perform <u>above</u> the minimal standards set by the university in the preceding paragraphs. Specifically:

- Students must obtain a grade of "B" or better in RHB core courses.
- Students are allowed a grade of a "C" in only two credited activities (class, seminar, independent study, research experience, or apprenticeship) during their doctoral education.
- A grade of E in any coursework is grounds for dismissal from the program.
- Failure to meet any of these expectations is grounds for dismissal from the program.
- In addition, the program expects the student to maintain a level of scholarship and research productivity that is satisfactory to the student's mentor and committee, and actively participate in their academic program which includes:
  - Revise and submit a Program of Study annually.
  - Attend RHB Program Colloquiums
  - Advise the Program Director or the Director of Graduate Studies if of a leave of absence from courses or the program
  - Update and meet with Advisors to update the Assessment of Student Performance Form Annually
  - Complete all Teaching and Research Apprenticeship forms and assure that the documentation is complete before the first third of the semester has passed

- Complete all Independent Study forms and assure that the documentation is complete before the first third of the semester has passed
- Submit two manuscripts for publication before dissertation defense

Failure to meet any of these expectations is grounds for the doctoral advisory committee to recommend remediation or dismissal from the program.

REHABILITATION and HEALTH SCIENCES PROGRAM FACULTY

Listed below are the faculty members of the Rehabilitation and Health Sciences (RHB) PhD program.

University of Kentucky Faculty

Dean, College of Health Sciences

Scott M. Lephart, Ph.D., Endowed Chair of Orthopaedic Research

Research interests: Neuromuscular and biomechanical analysis of human movement associated with musculoskeletal injury, surgery, rehabilitation, and prevention

Vice Dean

Karen Badger, Ph.D., MSW, Health and Clinical Sciences

Research interests: Psychosocial adjustment and support of burn survivors and their families post-injury, with special emphasis on community reintegration, social adjustment, and peer support.

RHB Program Director & Director of Graduate Studies

Esther E. Dupont-Versteegden, Ph.D., Physical Therapy

Research interests: Cellular and physiological mechanisms of skeletal muscle atrophy particularly with aging; interventions for inhibited regrowth of muscle, i.e. massage; ICU-related muscle weakness.

Associate Dean for Research

Brian Noehren, Ph.D., PT, Physical Therapy

Research interests: Running injury mechanics, knee osteoarthritis, anterior cruciate ligament reconstruction rehabilitation and outcome measures, pain physiology, Novel therapeutic treatments and their effect on mechanics and pain, biomechanics, therapeutic interventions and patellofemoral pain and mechanics.

Associate Dean for Faculty & Clinical Engagement

Janice Kuperstein, PT, Ph.D., MSEd, Physical Therapy

Research interests: Health care delivery system; person-centered care; interprofessional practice.

Other Program Faculty

Richard D. Andreatta, Ph.D., Communication Sciences & Disorders

Research interests: Vocal tract physiology and neural control of speech and non-speech oromotor perception-action, rehabilitation neuroplasticity, and behavioral neuroscience.

Carrie Baker, Ph.D., ATC, Athletic Training and Clinical Nutrition

Research interests: Risk factor analysis of sports-related musculoskeletal injuries in athletes as well as scale and survey development and analysis of psychometric properties.

Christy Brady, Ph.D., Health and Clinical Sciences

Research interests: Obesity, constrained choice, and health disparities.

Timothy A. Butterfield, Ph.D., ATC, FACSM, Athletic Training

Research interests: Plasticity of skeletal muscle; functional adaptation of skeletal muscle as a result of exercise; the role of exercise on muscle inflammation, damage and the cellular mechanisms underlying the efficacy of massage therapy.

Ming-Yuan Chih, Ph.D., MHA, Heath and Clinical Sciences

Research interests: Developing and implementing interventions that enable patients and their families to play a central role in the management and improvement of the patient's health.

Karen Clancy, Ph.D., MBA, BHS, MT, Health and Clinical Sciences

Research interests: Patient experience, quality management and patient safety, service delivery models, telehealth, patient/provider communication, patient interviews, learning theory, organizational learning, and clinical education pedagogy.

Sheila Clemens, Ph.D., PT, MPT, Physical Therapy

Research interests: Focusing on examining outcomes after lower limb amputation and the effects of socioenvironmental factors on prosthetic gait mechanics and mobility.

Dee Dlugonski, Ph.D., Athletic Training & Clinical Nutrition

Research interest: To improve the health, well-being, and quality of life of families through physical activity, with a particular focus on maternal and child health.

Christopher Fry, Ph.D., Athletic Training & Clinical Nutrition

Research interests: Contribution of different progenitor cells to muscle adaptation, and his current work explores muscle quality and stem cells in the recovery of muscle mass and function following injury.

Jean Fry, Ph.D., RDN, Clinical Nutrition

Research interests: Focusing on optimizing micronutrient status to support recovery after musculoskeletal injury and hypertrophic response to resistance exercise training, especially in older adults.

Catherine Gohrband, Ph.D. PT, DPT, PCS, Physical Therapy

Research interest: Clinical transitions for persons with lifelong disabilities.

Phillip Gribble, Ph.D., ATC, FNATA, Athletic Training and Clinical Nutrition

Research interests: Neuromuscular consequences of ankle and knee injuries and developing intervention strategies to alleviate health care burden from these injuries.

Allison Hatcher, Ph.D., CCC-SLP, Communication Sciences and Disorders

Research interests: Parent-implemented language intervention, telepractice in SLP, Autism Spectrum Disorder in young children.

Charles Hazle, P.T., Ph.D., Physical Therapy

Research interests: Evaluation and treatment of spinal and peripheral joint disorders, and manual therapy education, MSK imaging, and clinical reasoning.

Nick Heebner, Ph.D., ATC, Athletic Training and Clinical Nutrition

Research interests**:** Injury prevention and performance enhancement in sport, military, and occupational populations; Return to duty/activity following musculoskeletal injury; and the use of inertial measurement units to quantify movement and activity workload.

Johanna M. Hoch, Ph.D., ATC, Athletic Training and Clinical Nutrition

Research interests: Health-related quality of life following musculoskeletal Injury; patient-reported outcome instrument psychometric property evaluation in high functioning, physically active populations; outcomes assessment.

Matt Hoch, Ph.D., ATC Athletic Training and Clinical Nutrition

Research interests: Mitigating sensorimotor compromise and enhancing patient-centered care following traumatic lower extremity injuries to reduce the long-term consequences of these conditions over the lifespan.

Keiko Ishikawa, PhD., MM, CC-SLP, Communication Sciences & Disorders

Research interests: the contribution of voice disorders to intelligibility deficits in real-world communication environments, and

the effect of the environments on speakers' ability to implement voice and speech therapy techniques.

Nathan Johnson, PT, DPT, Ph.D., Physical Therapy
Research interests: Cardiorespiratory fitness and brain health, preventative medicine through lifestyle modifications.

Sarah Kercsmar, Ph.D., Health and Clinical Sciences
Research interest: Scholarship of Teaching and Learning, service-learning, and population level public health interventions.

Patrick Kitzman, Ph.D., PT, Physical Therapy
(Acting RHB Program Director & Director of Graduate Studies)
Research interests: Rehabilitation neuroplasticity, community-based applications for individuals with spinal cord injury, stroke and brain injury.

Kyle Kosik, Ph.D., ATC, Athletic Training
Research interests: Understanding how the current treatment for lower extremity joint injuries fail to prevent individuals from presenting with neuromuscular dysfunction and biomechanics adaptations that are responsible for causing lifelong disability and post-traumatic osteoarthritis.

Joneen Lowman, Ph.D., CCC-SLP, Communication Science & Disorders
Research interests: School-age language and literacy intervention; use of information technology and its application to treatment in school-aged children; telerehabilitation.

Kirby Mayer, Ph.D., DPT, Physical Therapy
Research Interest: Muscle and physical function outcomes for patients with and who have survived acute critical illness; post intensive care syndrome; critical care rehabilitation; ICU physical therapy; outcomes for patients with end-stage organ disease undergoing transplantation; outcomes for survivors living in rural Kentucky.

Kristen Metzler-Wilson, Ph.D., Physical Therapy
Research interests: the autonomic nervous system and peripheral neuropharmacology.

Anne D. Olson, Ph.D., CCC-A, Communication Sciences & Disorders
Research interests: Aural Rehabilitation for adults with hearing loss, prevention programs to promote healthy hearing in young adults.

Allison Owen, Ph.D.
Research interests: Exploring immunoregulatory factors as drivers of poor muscle quality and unveil their potential as therapeutic targets to improve muscle function among survivors.

Patrick Pabian, PhD., PT, DPT, Physical Therapy

Research interests: Orthopedic and educational research.

Christen Guffey Page, PhD., CC-SLP, Communication Sciences and Disorders

Research interests: Aphasia, dementia, caregiver training, and interprofessional education.

Randa Remer, Ph.D., LPC, Admissions

Janine Schmedding-Bartley, Ph.D., CCC-SLP, Communication Sciences and Disorders

Research interests: Individuals with ASD and particularly children under the age of 5, who display red-flags for ASD or have been diagnosed with ASD.

Kevin Schuer, DrPH, PA-C, Physician Assistant Studies

Research interests: Interprofessional education and practice; health care quality and patient safety: health services and workforce research.

Karen Skaff, RDH, Ph.D., Health and Clinical Sciences

Research interests: Integrating Oral Health with Primary Care; Innovative Instructional Strategies in Ethics, Educational Outcomes; Using Standardized Patient Evaluations to Improve Program.

Steve Schwarze, Ph.D., MLS (ASCP) CM Health and Clinical Sciences

Christopher Swartz, Ph.D., MLS (ASCP) CM

Research interests: The development and validation of analytical methods for the screening of various drugs or toxins in patients, and inborn errors of metabolism in newborns. Dr. Swartz is specifically interested in the utilization of serological techniques, or liquid chromatography-mass spectrometry (LC-MS) for screening purposes.

Travis Thomas, Ph.D., RDN, CSSD, LD, FAND, Athletic Training and Clinical Nutrition

Research interests: Medical Nutrition Therapy & Nutrition for Athletic Performance. Role of vitamin D in promoting muscle health and performance; Nutrition interventions that influence the nitrate–nitrite–nitric oxide pathway in clinical populations

Timothy L. Uhl, Ph.D., ATC, PT, FNATA, Physical Therapy

Research interests: Effectiveness of clinical interventions to treat upper extremity injuries. Assessment of readiness to return to sport or normal function. Assessment of arm usage in overhead sports. Biomechanical

and Neuromuscular assessment of the upper extremity demands in sport and daily activity.

Virginia Valentin, DRPH, PA-C, Physician Assistant Studies
Research interests: PA workforce and understanding the utilization of PAs and barriers to providing patient care. Medical education with a particular interest in disparities and barriers to success for both students and faculty.

Jami Warren, Ph.D.,M.A. Health and Clinical Sciences
Research interests: Experiential and service-learning, program assessment, student engagement, and curriculum design and instruction.

Brandi M. White, Ph.D., MPH Health and Clinical Sciences
Research interests: Primary and secondary stroke prevention for medically underserved populations.

Joshua Winters, Ph.D., CSCS, Athletic Training and Clinical Nutrition
Research interests: Understanding how biomechanical factors such as altered movement strategies, dynamic joint loading, and neuromuscular function influence physical performance and risk of musculoskeletal injury within active military warfighters and active populations.

Leslie Woltenberg, Ph.D., Physician Assistant Studies
Research interests: Interprofessional education, cognitive and student development, collaborative learning, leadership and assessment in the health professions.

Eastern Kentucky University Faculty

Renee Causey-Upton, PhD, OTD, OTR/L, CLA, FAOTA
Research interests: preoperative education, readiness for discharge, total joint replacement, adult physical dysfunction and rehabilitation, and occupational therapy education

Laura Bray, PhD, OTR/L
Research interests: literacy, handwriting, pediatrics, experiential learning, and occupational therapy education

Dana Howell, PhD, OTD, OTR/L, FAOTA
Research interests: Qualitative research, interprofessional practice and education, quality of life, and adult physical dysfunction and rehabilitation

Western Kentucky University Faculty

Jenny Burton, Ph.D., CCC-SLP

Amy Engelhoven, Ph.D., CCC-SLP, CBIS

Kimberly Green, Ed.D., CCC-SLP

REHABILITATION SCIENCES DOCTORAL PROGRAM LABORATORIES

College of Health Sciences Basic Research Muscle Laboratories

The basic science (wet) labs of the Rehabilitation (RHB) Sciences Doctoral Program faculty occupy approximately 5,000 square feet on the 4th floor of the Wethington building, and are part of the **Center for Muscle Biology** (CMB; www.uky.edu/chs/muscle), directed by Dr. Charlotte Peterson. The CMB is home to 35 members, representing five colleges and 10 departments from across the UK campus with approximately $14 million in extramural research funding. The mission of the CMB is to support and integrate basic, clinical and translational research on muscle throughout the University of Kentucky. The goal is to understand mechanisms regulating muscle structure and function that impact overall health, to develop new strategies to improve physical performance and prevent frailty and the loss of functional independence following injury and in the face of chronic disease and aging.

The laboratories of Drs. Esther Dupont-Versteegden, Christopher Fry and Charlotte Peterson are fully equipped with state-of-the-art equipment for cellular and molecular biologic analyses of rodent and human muscle tissues. The labs contain several tissue culture facilities for studying isolated primary muscle cells. Human tissue and primary muscle cell lines are stored in the CMB Human Muscle Bank, directed by Dr. Grace Walton. Shared equipment includes QuantStudio3 real time PCR detection system, BioRad ChemiDoc MP imaging system, and ZetaView (R) Nanoparticle Tracking Analysis system.

The wet labs are supported by a shared imaging facility that serves as the CMB Muscle Immunohistochemistry and Molecular Imaging Core (MIMIC), directed by Dr. Kate Kosmac. The facility includes three Micron cryostats, Zeiss AxioImager MI upright and AxioObserver D1 inverted fluorescent microscopes, each with fully automated stages for whole slide scanning and image stitching capabilities. The inverted scope is also equipped with an incubator system for live cell time lapse imaging. A third Olympus BX61VS upright fluorescent microscope has a fully automated stage which can hold up to 5 slides at once for whole cross-section imaging in batches. The MIMIC also provides access to MyoVision, an automated image analysis software program for quantifying muscle properties.

Dr. Tim Butterfield's **muscle mechanics lab** contains animal treadmills, with integrated electromyography and high speed camera systems to measure in-vivo kinematics and kinetics, and custom fabricated tissue loading devices and instrumentation for the measurement of passive and active mechanical properties of rodent muscle, in-vivo. A complete Aurora muscle physiology system allows measurement of mechanical properties in isolated, whole muscle, including force-frequency, force-velocity, and force length, and permits additional measurements of fatigue, calcium sensitivity, rate of tension rise and recovery, passive muscle stiffness, and break length. The lab also contains custom fabricated mechanotherapy equipment (instrumented human and animal massage devices) for the application and quantification of external mechanical loads to human and animal skeletal muscle.

College of Health Sciences Translational Research Laboratories

Dr. Brian Noehren, director of the **Human Performance Laboratory (HPL) and Biomotion Labs** (located in the adjacent Multidisciplinary Sciences (MDS) building, see below), has his Biomotion Computer Lab on the 4th floor of Wethington near the wet labs, where modeling and analyses of biomechanics data obtained from human research volunteers are performed.

Dr. Geetanjali Gera's **Neuromotor Control & Rehab Lab** is located across the hall. The Neuro Motor Control and Rehab Laboratory is well equipped for assessing balance and postural control deficits. The lab has 10 cameras (Motion Analysis, Santa Rosa, CA), a 7 x 3 surface perturbation treadmill with overhead safety harness (Activestep, Symbex, Lebanon, NH), 7 sensor Opal inertial measurement unit (IMU) system (APDM, Portland, OR).

Located in the MDS building, the HPL occupies approximately 1365 square feet on the first floor and 1765 square feet in the basement, the latter housing the Biomotion Lab. The HPL embodies translational science with investigators from the colleges of Health Sciences, Education, Medicine, and Engineering working side by side on projects ranging from mechanistic studies in biomechanics to cutting edge physical therapy treatments. The first-floor laboratory contains space dedicated to evaluating biomechanics across activities ranging from basic tasks such as transitioning between sitting to standing to advanced tasks such as performing a running cut motion at full speed. The Biomotion Lab contains two separate areas, one dedicated to the collection of walking and running biomechanics with a sophisticated force measuring treadmill, motion capture cameras, as well an isokinetic dynamometer. The other area of the Biomotion Lab contains a full functioning physical therapy clinic with dedicated space for both resistance and endurance exercise equipment, treatment plinths and exam rooms. The two spaces provide a unique environment to mechanistically test new treatments, and also serve as the **University of Kentucky Running Clinic**. This specialty clinic allows runners from the community to come in for a fee and have their running form and/or injuries assessed. Major equipment in the HPL includes: Keiser resistance exercise equipment, cycling ergometers, treadmills, Bertec and AMTI force measurement platforms, Bertec Instrumented treadmill, Biodex dynamometer, 20

Motion Capture Cameras, Delsys EMG equipment, accelerometers, novel instrumented insoles and 12 computer workstations.

Laryngeal and Speech Dynamics Laboratory

Directed by Drs. Richard Andreatta and Joseph Stemple, this lab is dedicated to the study of physiological mechanisms underlying the human vocal tract during speech and vocalization. The lab currently supports many lines of research that together addresses the integrative nature of vocal function and speech production. Research lines include neuroimaging using fMRI, sensory perception, laryngeal physiology, and basic research in laryngeal muscle biology in animal models. The lab boasts a comprehensive array of technologies that allow for the recording and analyses of respiratory, phonatory, and neural subsystems during a variety of dynamic and static speech/voice tasks. The lab is equipped with several stimulus and transducing systems including: (1) a servo-linear motor for mechanically evoked reflex studies of the trigemino-facial pathway, (2) a precision vibrotactile delivery system for somatosensory perceptual and movement-related gating studies, (3) an automated muscle force assessment workstation for analyzing lip, jaw and tongue muscle performance skills in vivo, (4) kinematic transducers for various orofacial motion tracking applications, and (5) state-of-the-art tools for visual imaging of vocal function, acoustic analysis of the voice signal, and aerodynamic assessment of voice production including respiratory and glottal airway measures. A full-size Faraday booth built within the lab space is also available for EMG and evoked response studies.

Sports Medicine Research Institute

The University of Kentucky Sports Medicine Research Institute (SMRI) is a multidisciplinary research center focused on injury prevention and performance optimization, musculoskeletal health and rehabilitation, metabolism, and neuro-cognition. SMRI is dedicated to excellence in research, community outreach, and collaboration — all leading to one outcome: optimal health.

Focusing on tactical athletes and youth and collegiate-level athletes, SMRI explores ways to minimize injury, optimize performance and maximize career longevity and quality of life. Test models include those specific to risk mitigation, nutrition, fatigue, endocrine health, sleep and stress, battlefield medicine, adaptive technology, concussion, orthopaedic-related injury prevention and rehabilitation interventions, healthy aging, and women's health.

SMRI will provide outreach opportunities incorporating applicable strategies on injury prevention, human performance, sports nutrition and overall wellness to recreational and competitive youth, high school, collegiate, professional, and senior athletes, coaches, parents, and other health care providers.

The EKU-OT Research Center

The EKU-OT Research Center is located within the Occupational Therapy Department, at 107 Dizney Building, on the campus of Eastern Kentucky University in Richmond. Research taking place there can be reviewed through the Department's web page. The Research Center is used by multiple research teams, who schedule meeting times in the Center, as well as by a variety of research support workers, such as

graduate assistants and transcriptionists. The Center includes four workstations, one of which is a Macintosh video analysis system. Data analysis software available there also include Hyper Research, Ethnography, and SPSS. Research meeting support includes video projection from laptops, tea and coffee service, refrigerator, and a selection of local take-out menus. Secure data storage, methods reference library, conference phone, and audio-recording equipment are also available. The EKU-OT Research Center serves as the primary research space of the Endowed Chair in Occupational Therapy and is restricted to research use by Department faculty members and doctoral students.

All About Communication (AAC) Lab:
All About Communication (AAC) Lab works on a variety of communication sciences and disorders projects each year. They typically involve 1) creating instruments to use in epidemiology and clinical studies, 2) understanding functional communication within participation 3) using telehealth to reduce rural health care disparities. Current projects include:
1) Creating instruments to use in epidemiology and clinical studies
Continued development and dissemination of the Communication Function Classification System (CFCS). The CFCS can be used with children and adults who have cerebral palsy. CFCS translations continue to be initiated by professionals and researchers who want to use the CFCS in their native language. CFCS translations can be downloaded from my CFCS website www.cfcs.us.
Autism Classification of Social Function: Social Communication (ACSF:SC) We have developed a classification system ACSF:SC that provides researchers and clinicians across disciplines with descriptions of social functioning for preschoolers with autism.
2)Understanding functional communication within life participation.
One project is expanding the use of the CFCS to adults and adolescents with cerebral palsy. The expansion is working to incorporate the CFCS with the Gross Motor Function Classification System (GMFCS), Manual Ability Classification System (MACS), and Rotterdam Transition Profile (4). In addition, we want to collect therapy intensities and types used with individuals with cerebral palsy.
Another project is expanding the use of the CFCS to other populations. We are currently analyzing data from ELGAN, comparing the communication measures used with ten-year-olds who were born very premature.
A new project is to identify the ACSF:SC level of individuals with autism and collect data on current intervention.
3) Using telehealth to address rural health disparities
Rural Coordinated Care for Parkinson's disease We are seeking funding of a randomized control trial of telehealth compared to usual care in providing exercise, speech therapy, and medication management to people with Parkinson's disease in rural areas.

TAALC Lab: *Jane Kleinert, Ph.D.; Judy Page, Ph.D. (CSD) and Jacqui Kearns, Ed.D. (Human Development Institute)*
We have a SPDG grant which is federal monies allocated to the Kentucky Department of Education (KDE) for personnel development. Our SPDGA is entitled: Teaching Age-

appropriate Academic Learning via Communication. The object is to complete training and research on improving communication services to public school age students and persons with severe disabilities. The TAALC projects works in conjunction with the KDE to assist school districts and Special Education Cooperatives across the state to initiate strong intervention programs for communication and AAC use in the schools when needed. We develop materials and on-line training modules for use with teachers and SLPs in Kentucky and nationally. Our current data shows improvement in communication status of students in Kentucky. From our previous research with the National Alternate Assessment Center (2008-2012) and the National Collaborative States Center (NCSC- 2011-2016) we analyzed an extensive national data set on the communication status of students in Alternate Assessment (students with severe intellectual disabilities) and the AAC needs of such students. We have recently submitted for a grant that would allow us to access the KY data on students in Alternate Assessment and study why historically there is only minimal progress across the grade span in the area of communication skills with these students.