Rehabilitation Science

Degree Offered: Ph.D.
Director: Dr. William Reed
Phone: (205) 934-3261
E-mail: wreed@uab.edu or rehabscience@uab.edu
Website: http://www.uab.edu/rsphd

Program Information
Ph.D. in Rehabilitation Science

The Ph.D. in Rehabilitation Science program is an interdisciplinary program offered by The Department of Occupational Therapy and The Department of Physical Therapy at the School of Health Professions. This exciting program is designed to prepare graduates to become:

- Academicians, scholars, scientists and researchers in education, health care, industry, and government institutions.
- Consultants to individuals, communities, and governments.

The goal of the Program is to prepare graduates to have the following skills:

- Design and implement research studies that will contribute to the knowledge base of rehabilitation science.
- Design and deliver educational courses related to rehabilitation.
- Translate innovative rehabilitation research findings into practice so as to advance the field of rehabilitation science.

The aim of this program is to prepare candidates to become leaders in teaching and research within the field of Rehabilitation Science. However, this is not a clinical training program. Applicants planning to become occupational therapists or physical therapists should visit the following websites to pursue training in these two professions: www.uab.edu/ot or www.uab.edu/pt.

For further information contact:
Elisa Lewis, Program Coordinator II
PhD Program in Rehabilitation Science
205-934-4644
e-mail: elewis06@uab.edu

Typical Program
(Course requirements are listed in semester credit hours)

<table>
<thead>
<tr>
<th>Year</th>
<th>First Term</th>
<th>Second Term</th>
<th>Summer Term</th>
<th>Total Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td>RHB 780 3</td>
<td>RHB 781 3</td>
<td>3 RHB 782 3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>RHB 783 3</td>
<td>RHB 785 3</td>
<td>3 RHB 789 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>RHB 789 1</td>
<td>RHB 789 1</td>
<td>1 GRD 717 3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>EPR 609 3</td>
<td>EPR 710 3</td>
<td>3 Elective Coursework 3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Qualifier Exam 10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Year</td>
<td>RHB 789 1</td>
<td>RHB 789 1</td>
<td>1 RHB 746 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>RHB 798 3</td>
<td>RHB 798 3</td>
<td>3 RHB 789 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Elective Coursework 6</td>
<td>Elective Coursework 6</td>
<td>6 RHB 798 3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Elective Coursework 5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dissertation Proposal</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third Year</td>
<td>RHB 799 6-9</td>
<td>RHB 799 6-9</td>
<td>6-9 RHB 799 6-9</td>
<td>6-9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fourth Year</td>
<td>RHB 799 6-9</td>
<td>RHB 799 6-9</td>
<td>6-9 RHB 799 6-9</td>
<td>6-9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6-9 Dissertation Defense</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total credit hours: 90-105</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The degree plan will vary by the student's academic discipline and preparation upon entry to the PhD in Rehabilitation Science Program.*
A Sample of possible Elective Courses Currently Offered at UAB includes:

**Requirements**

**Hours**

Concentration Electives: These are electives in a specific disease, population, or content area of interest  
- RHB 590 Quantitative Biomechanics of Injury and Rehabilitation  
- NCH 760 Child Health Theories and Concepts  
- NTR 650 Body Composition and Energy Metabolism  
- OT 677 Foundations in Low Vision Rehabilitation  

Academic Writing Electives: These are electives that focus on developing writing skills for scientific publications and/or preparation  
- GRD 706 Grants and Fellowships 101  
- GRD 708 Writing Successfully  
- GRD 709 Writing Fellowships  
- GRD 722 Writing Research for Broad Audiences  
- GRD 723 Writing Research for Academic Audiences  
- GRD 727 Writing & Reviewing Research  
- GRD 728 Professional Writing & Publishing  
- GRD 729 Writing Your Journal Article in 12 Weeks  

Research Methods Electives: These are electives in a specific research methodology or study design areas of interest  
- HPO 787 Empirical Methods for Health Research  
- HPO 692 Health Equity and Inclusion in Public Health Programs and Policies  
- NRM 773 Qualitative Research Methods  
- NUR 752 Responsible Conduct of Research: A Cross-Cultural Perspective  
- EPR 596 Introduction to Qualitative Methods in Educational Research  
- CS 681 Simulation Models  

Statistical Methodology Electives: These are electives in a specific statistical or data analysis methodology  
- HPO 721 Clinical Decision Making and Cost Effectiveness Analysis  
- EPI 710 Analysis of Case Control Studies  
- CS 610 Database Systems  
- BST 623 General Linear Models  
- BST 665 Survival Analysis  
- EPR 792 Mixed Methods Approaches to Educational Research  

Courses

RHB 500. Introduction to Rehabilitation Science. 3 Hours.  
Encapsulating science from the level of the cell and body structure to the person, family, community and society level, rehabilitation science serves as a foundation and the body of knowledge by which individuals may develop and evaluate current and emerging approaches to enhancing enablement and minimizing disability.  

RHB 575. Special Topics in Rehabilitation Science. 1-4 Hour.  
Exploration of current topics in Rehabilitation Sciences.  

RHB 590. Quantitative Biomechanics of Injury and Rehabilitation. 3 Hours.  
Material, mechanical, electrophysiological and energetic principles of human movement. Comparison of non-impaired verses impaired systems in relation to injury/disability.  

RHB 740. Teaching Practicum. 1-3 Hour.  
Individually designed, directed teaching experience in focus area appropriate to student’s background, needs, and goals under guidance of faculty preceptor.  
**Prerequisites:** RHB 780 [Min Grade: C] and RHB 781 [Min Grade: C] and RHB 782 [Min Grade: C] and RHB 783 [Min Grade: C] and RHB 784 [Min Grade: C]  

RHB 746. Rehabilitation Science Journal Club. 1 Hour.  
Student-led, facilitated discussion of current, impactful published research in rehabilitation science. Interaction with scientists and clinicians from multiple disciplines contributing to the rehabilitation science.  

RHB 775. Special Topics in Rehabilitation Sciences. 1-4 Hour.  
Exploration of current issues in Rehabilitation Sciences.  

RHB 780. Principles of Rehabilitation Science: Movement Science. 3 Hours.  
Interdisciplinary discussion of concepts, theories, principles, and research literature underlying the understanding of neural control, biomechanics, motor learning, and motor development and how purposeful and functional body movements are accomplished under a variety of health conditions and disease processes.  

RHB 781. Principles of Rehabilitation Science: Exercise Science. 3 Hours.  
Interdisciplinary discussion of concepts, theories, principles, and research literature underlying the understanding of cardiac and pulmonary physiology, exercise physiology, and health behaviors and how important activities are accomplished under a variety of health conditions and disease processes.  

RHB 782. Principles of Rehabilitation Science: Occupation Science. 3 Hours.  
Interdisciplinary discussion of concepts, theories, principles, and research literature underlying the understanding of occupation science and how work and play activities are accomplished under a variety of health conditions and disease processes.  

RHB 783. Research Design/Measurement in Rehab Sci. 3 Hours.  
A detailed overview of research design and methodologies used in rehabilitation science, including quantitative and qualitative methods.  

RHB 784. Res Design/Measure Rehab Sc II. 3 Hours.  
A detailed overview of research design and methodologies used in rehabilitation science, including quantitative and qualitative methods.  
A continuation of Research Design and Measurement in Rehabilitation Science I.  

RHB 785. Principles of Behavior Change in Rehabilitation Science. 3 Hours.  
Scientific and theoretical principles underlying health behavior change in the context of rehabilitation science; health behavior from an ecological perspective; seminal behavior change theories; key elements required for design, implementation, and analysis of rigorous health behavior change research.  

Varied discussion of rehabilitation science topics to help students explore research questions in preparation for their dissertation.  

Development of research proposal.  

Dissertation Research.  
**Prerequisites:** GAC Z