



The University of Utah
Doctoral Program in Rehabilitation Sciences

Doctoral Program in Rehabilitation Sciences

Student Handbook
Academic Year (2009-2010)

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INTRODUCTION

The policies and procedures outlined in this handbook have been prepared to assist graduate students pursuing a Doctor of Philosophy Degree in Rehabilitation offered through the Department of Physical Therapy at the University of Utah. These guidelines are intended to assist students pursuing this degree. The documents and policies in this handbook do not offer complete information. Students are advised to consult other resources such as "A Handbook for Theses and Dissertations (available from the Thesis Office for \$4.50 or online at <http://www.gradschool.utah.edu/thesis/handbook.pdf>); the current General Catalog, Student Handbook (www.utah.edu); the Graduate School (<http://www.gradschool.utah.edu>), and the Student Code (the University of Utah Code of Student Rights and Responsibilities at: www.admin.utah.edu/ppmanual/8/8-10.html.)

The rehabilitation of individuals with injury or disease is an important aspect of quality health care. There is a corresponding need to prepare scholars committed to advance the scientific basis of rehabilitation, and examine the clinical outcomes of evidence-based rehabilitation activities. The mission of the doctoral program in Rehabilitation Science is to advance the scientific knowledge underlying the clinical practice of rehabilitation by preparing students to conduct independent scientific research and function as an academic faculty member.

I. Admission Procedures

Applicants for admission to the doctoral program in Rehabilitation Science must be admitted by the Graduate School and the Department of Physical Therapy at the University of Utah. Applicants should have a strong interest in research, teaching, and service in a rehabilitation-related field. Applicants should also have a master's or clinical doctoral degree in an area related to the health sciences (e.g., DPT, MD, etc.). The exceptional student with a bachelor's degree *and* compelling clinical/research experience in health sciences will be considered.

Application to the Graduate School at the University of Utah can be completed online at: <http://www.sa.utah.edu/admiss/graduate.htm>. Deadline for application to the Graduate School is April 1st for fall semester admission and November 1st for spring semester. A late fee is assessed after these dates. The following information must be submitted to the Graduate School:

1. The Application for Admission to Graduate School (available online or in hard copy)
2. Official transcripts of undergraduate and graduate course work
3. For international students, a Test of English as a Foreign Language (TOEFL) score

The following information must be submitted to the Department of Physical Therapy:

1. A current curriculum vitae
2. Report of the Graduate Record Exam (verbal, quantitative, and analytical) taken within the past ten years
3. The Application for Admission form (see Appendix)
4. 3-5 letters of recommendation from individuals with knowledge of the applicant's potential for success in a doctoral program

Admission to the Doctoral Program in Rehabilitation Science will require:

1. Acceptance to the Graduate School at the University of Utah
2. A minimum grade point average of 3.0 in all college work and a score of at least 1500 on the Graduate Record Exam
3. Availability of faculty mentor resources that match the student's research interests
4. TOEFL score of at least 550, if applicable

Student Advisement

Upon admission into the doctoral program, each student will be matched with a faculty advisor. The faculty advisor will assist the student in developing a plan of study and will oversee the composition of a supervisory committee that will be identified after the student's first year. The faculty advisor may serve as the Chairperson of the student's supervisory committee, or a different person may be identified as the Chairperson if appropriate to the student's interest and faculty availability.

II. Program of Study

Coursework

A minimum of 66 credit hours are required for completion of the doctoral degree in Rehabilitation Science. These required credit hours must be taken from *five* different core areas listed below. Specific coursework will be determined by the student's advisory committee, with any changes or modifications subject to approval from the student's supervisory committee.

1. Research Design and Statistics (minimum 18 credit hours required)
2. Courses in the Rehabilitation Science Area of Emphasis (minimum 14 credit hours required)
3. Rehabilitation Science Seminar (minimum 4 credit hours required)
4. Electives, independent study, etc. to suit the needs of the individual student (minimum 12 credit hours required)
5. Dissertation credits (minimum 18 credit hours required)

Students are required to earn a grade of "B-" or higher in a core course in order to have that course apply towards the credit requirements for graduation. If a grade of "C+" or lower is received, that grade cannot be included on the Candidacy Form and the course must be repeated. All non-core courses must be passed according to University policy (C- or better).

Areas of Emphasis

Students entering the doctoral program in Rehabilitation Science will select an area of emphasis. There are two areas of emphasis from which to choose: *Evidence-Based Practice in Rehabilitation* or *Neuromuscular Adaptations to Rehabilitation*. The emphasis area in Evidence-Based Practice in Rehabilitation focuses on the study of clinical outcomes of care provided by rehabilitation professional, and the science of evidence-based practice. The emphasis area in Neuromuscular Adaptations to Rehabilitation is focused on examining the impact of rehabilitation methods on skeletal muscle, metabolism, movement, and human performance.

Supervisory Committee

Students in the doctoral program in Rehabilitation Science will form a supervisory committee after the completion of two semesters of coursework (minimum 18 credit hours). Students must submit a "Request for Supervisory Committee" form to the Graduate School at the University of Utah by the beginning of the student's second year in the doctoral program. The form is available online: (www.gradschool.utah.edu/students/doctoral_forms.php). The supervisory committee must consist of five members. The Chair of the supervisory committee must be a tenure-track faculty member at the University of Utah with either a primary or adjunct appointment in the Department of Physical Therapy. Two additional committee members must be from the Department of Physical Therapy at the University of Utah (primary or adjunct appointment). The final two committee members must be from outside the Department of Physical Therapy. The supervisory committee will have the responsibility for approving the student's academic program, preparing and judging the qualifying examinations, approving the dissertation subject and final dissertation, and administering and judging the dissertation defense.

Plan of Study

The chairperson of the student's supervisory committee has the responsibility to plan with the student a program of study. The "Program of Study" form outlining the plan of study must be submitted by the student to the Graduate School. This form is available online (www.gradschool.utah.edu/students/doctoral_forms.php). The plan of study should be completed and submitted to the Graduate School by the end of second semester of coursework. The Program of Study form is signed by all members of the supervisory committee and the Doctoral Program Director.

SAMPLE PLAN OF STUDY – Evidence-Based Practice Emphasis

TERM	COURSE	CREDITS
Year 01_FALL	NURS 7201 Statistics I	4
	RHSCI 7010 Principles of Clinical Research I	3
	RHSCI 7500 Rehabilitation Sciences Seminar	1
	FP MD 6100 Introduction to Biostatistics	3
	RHSCI 7920 Ind. Study in Rehabilitation Sciences	2
Year 01_SPRING	NURS 7202 Statistics II	4
	RHSCI 7020 Principles of Clinical Research II	3
	RHSCI 7500 Rehabilitation Sciences Seminar	1
	FP MD 6300 Introduction to Epidemiology	3
	RHSCI 7100 Principles of Evidence-Based Rehabilitation	3
Year 01_SUMMER	RHSCI 7920 Ind. Study in Rehabilitation Sciences	4
Year 02_FALL	NURS 7100 Descriptive Research Designs	3
	MDCRC 6120 Cost-Effectiveness Analysis	2
	RHSCI 7500 Rehabilitation Sciences Seminar	1
	FP MD 6105 Advanced Topics in Epidemiology and Biostatistics	3
	GERON 6003 Research Methods in Aging	3
Year 02_SPRING	NURS 7002 Experimental and Correlational Design	3
	FP MD 6305 Advanced Methods of Epidemiologic Research	2
	RHSCI 7500 Rehabilitation Sciences Seminar	1
	FP MD 6405 Health Services Research	2
	RHSCI 7920 Ind. Study in Rehabilitation Sciences	2
	COMPLETION of QUALIFYING EXAMINATION	
Year 02_SUMMER	RHSCI 7920 Ind. Study in Rehabilitation Sciences	2
	RHSCI 7970 Dissertation Thesis Research	3
Year 03_FALL	RHSCI 7970 Dissertation Thesis Research	3
	MDCRC 6430 Bioethical Issues in Clinical Research	1
	FP MD 6500 Introduction to Public Health	3
Year 3_SPRING – Year 4_SUMMER	RHSCI 7970 Dissertation Thesis Research	12 credits total

TOTAL NUMBER OF CREDITS (minimum 66 required):	76
Research Design and Statistics Credits (minimum 18 required):	20
Core Courses in Emphasis Area (minimum 14 required):	20
Rehabilitation Science Seminar Credits (minimum 4 required):	4
Electives, independent study, etc, credits (minimum 12 required):	14
Dissertation Credits (minimum 18 required):	18

SAMPLE PLAN OF STUDY – Neuromuscular Adaptations Emphasis

TERM	COURSE	CREDITS
Year 01_FALL	NURS 7201 Statistics I	4
	RHSCI 7010 Principles of Clinical Research I	3
	RHSCI 7500 Rehabilitation Sciences Seminar	1
	ESS 6380 Muscle Physiology	3
	RHSCI 7920 Ind. Study in Rehabilitation Sciences	2
Year 01_SPRING	NURS 7202 Statistics II	4
	RHSCI 7020 Principles of Clinical Research II	3
	RHSCI 7500 Rehabilitation Sciences Seminar	1
	BIOENG 6010 Systemic Physiology	3
	RHSCI 7100 Principles of Evidence-Based Rehabilitation	3
Year 01_SUMMER	RHSCI 7920 Ind. Study in Rehabilitation Sciences	4
Year 02_FALL	NURS 7100 Descriptive Research Designs	3
	BIOENG 6430 System Neuroscience	4
	RHSCI 7500 Rehabilitation Sciences Seminar	1
	ESS 6300 Advanced Exercise Physiology	3
	GERON 6001 Introduction to Gerontology	3
Year 02_SPRING	NURS 7002 Experimental and Correlational Design	3
	ESS 6310 Advanced Exercise Physiology II	3
	RHSCI 7500 Rehabilitation Sciences Seminar	1
	ESS 6320 Exercise and Disease	3
	RHSCI 7920 Ind. Study in Rehabilitation Sciences	2
	COMPLETION of QUALIFYING EXAMINATION	
Year 02_SUMMER	RHSCI 7920 Ind. Study in Rehabilitation Sciences	2
	RHSCI 7970 Dissertation Thesis Research	3
Year 03_FALL	RHSCI 7970 Dissertation Thesis Research	3
	MDCRC 6430 Bioethical Issues in Clinical Research	1
	FP MD 6500 Introduction to Public Health	3
Year 3_SPRING – Year 4_SUMMER	RHSCI 7970 Dissertation Thesis Research	12 credits total

TOTAL NUMBER OF CREDITS (minimum 66 required):	80
Research Design and Statistics Credits (minimum 18 required):	20
Core Courses in Emphasis Area (minimum 14 required):	25
Rehabilitation Science Seminar Credits (minimum 4 required):	4
Electives, independent study, etc, credits (minimum 12 required):	13
Dissertation Credits (minimum 18 required):	18

Qualifying Examination

Students will be eligible to complete the Qualifying Examination after completing a minimum of 2 semesters of coursework (minimum 18 credit hours). The Qualifying Examination will consist of two parts, a written examination consisting of an NIH-format grant proposal, and an oral examination involving a defense of the student's written grant proposal. The student's supervisory committee will be responsible for preparing and grading the written examination and judging the adequacy of the oral examination.

1. Assigning a Topic for the Qualifying Examination: At least 3 months prior to completion of the qualifying examination the student's supervisory committee will assign a topic to the student.
2. Identifying Specific Aims: The student will develop 6-8 potential specific aims for a grant based on the research topic assigned. The student will present these specific aims to the supervisory committee in writing, and in an oral presentation. The rationale for each specific aim based on the existing literature in the topic area must also be presented. The supervisory committee will select 2-3 specific aims for the student's written examination.
3. Written Examination: Following the selection of the specific aims, the student will have a maximum of 3 months to develop a full, NIH-format grant application addressing the assigned specific aims. The application will be based on the NIH formatting and standards for an RO3 application.
4. Oral Examination: Within 1 month after completion of the written portion of the qualifying examination, the student will give a 30 minute presentation of the proposal, and will be examined by the supervisory committee on the proposal.

Dissertation

The student will be required to submit a dissertation with the results of the student's dissertation research. The dissertation will be judged and approved by the student's supervisory committee. Students will be required to perform an oral dissertation defense. At least three weeks before the dissertation defense, the student will submit a written draft of the dissertation to the chair of the supervisory committee who will distribute copies to the supervisory committee.

There are two options for meeting the dissertation requirement. The first option, submitting three academic manuscripts to peer-reviewed journals, is the preferred format for most students. Students pursuing this option are required to submit three full-length manuscripts containing original data to journals approved by the student's supervisory committee. The number of manuscripts required for submission may be adjusted by the student's supervisory committee. The manuscripts must be related and form a cohesive whole. The text of the submitted manuscripts will form the central part of the student's written dissertation. The dissertation must also include an abstract, introduction, conclusion or discussion, references, and other required pages in the same manner as a traditional dissertation. Additional chapters to connect the individual manuscripts may also be required by the student's supervisory committee. The second dissertation option is the traditional 'book' style dissertation. Students will work closely with their supervisory committee to determine their own dissertation option.

Dissertation Defense

Following completion of the dissertation the student will present a public oral defense of the work. The student should submit the dissertation in final form to the Chairperson of the supervisory committee at least three weeks prior to the dissertation defense. The supervisory committee should receive copies of the final dissertation at least two weeks prior to the defense. The student should work with the supervisory committee to plan the defense. The student should notify the Office of Academic Affairs and Student Services of

the defense date so the presentation can be publicly announced at least two weeks in advance. It is Graduate School policy that the candidate must be registered for a minimum of three graduate credit hours in the semester in which the dissertation is defended.

The dissertation defense is under the direction of the Chair of the supervisory committee. The defense should follow the general order of the dissertation. The dissertation defense presentation should allow time for questions from the supervisory committee, the academic community, and the general public. Revisions of the dissertation may be required as a result of feedback from the discussion and questions raised by the supervisory committee at the dissertation defense.

Dissertation Submission Requirements

Students must submit copies of the approved dissertation to the Thesis and Dissertation Editor as required by University policy. Prior to submission of the dissertation, the following certification forms must be completed and submitted. This form is available online at: (<http://www.gradschool.utah.edu/thesis/forms.php>).

1. The Supervisory Committee Approval form signed by all members of the supervisory committee that the dissertation is of satisfactory quality for the degree.
2. The Final Reading Approval form signed by chairperson of the student's supervisory committee. The Final Reading Approval form indicates that the dissertation has been read in its final form and the manuscript is acceptable.

Once these signed forms are completed, the student must submit the dissertation to the Graduate School to obtain the signature of the dean of the Graduate School. Further details on submission of the dissertation are available in the Handbook for Theses and Dissertations, available at (<http://www.gradschool.utah.edu/thesis/handbook.pdf>).

III. Credit and Grading Policies

Transfer Credits

The University of Utah allows 6 transfer credits from another university, but they must be credits that were not used for the completion of a prior degree. Therefore, doctoral students who received a master's degree at another university cannot transfer credits obtained at that university that were completed as a part of the master's degree. If a master's or doctoral student transferred to the University of Utah from another graduate program without completing a degree, 6 of the credits from the previous program may be transferred to the program at the University of Utah. Transfer credits must have been considered the equivalent of graduate level at the University of Utah and must have earned a grade of B or higher. Whether transfer credits can be applied to the student's program of study is the decision of the student's supervisory committee.

Maximum Number of Credits

No student in the PhD program in Rehabilitation Sciences may register for more than 16 credit hours in any single semester. A schedule of nine credit hours is considered a full course load. Students who wish to register for 17 credit hours or more must file a formal petition to the Dean of Graduate Studies. This petition must include:

1. A completed petition form
2. Two letters of support from their committee members
3. An approval letter from the Program Director

Non-Matriculated Credits

University of Utah regulations specify that a student may not apply more than 9 hours of non-matriculated credit toward any graduate degree unless the student's registration for additional credit hours is specifically approved in advance by the Dean of the Graduate

School. Specific courses may be considered based upon relevancy to their graduate program. Courses taken via distance education are considered in residence courses, provided they are a part of the student's approved program of study. Courses taken by correspondence or home study are not eligible for graduate credit.

Incomplete (I) Grade

The grade incomplete (I) may be given for work not completed because of circumstances beyond the student's control, providing the student is passing the course and has completed at least 80% of the work required for the course. Arrangements must be made between the student and the instructor concerning completion of the work. If incomplete work has not been finished and a grade has not been reported within the calendar year after the (I) was given, the (I) is changed to an (E) by the Registrar's Office. Students on a Leave of Absence still must adhere to this timeline.

Minimum Continuous Registration

All graduate students must maintain continuous registration (3 credit minimum) from the time of formal admission through the completion of requirements for the doctoral degree unless granted an official leave of absence. If students do not comply with this continuous registration policy and do not obtain an official leave of absence, their Supervisory Committee is terminated and their records are inactivated. For more information refer to the University of Utah General Catalog under Minimum Continuing Registration: Doctoral Degrees. The regulations do not apply to summer term unless the qualifying exam, proposal defense or defense of the dissertation occurs during that term.

Leave of Absence

A student wishing to discontinue study for one or more semesters must file a Request for Leave of Absence form available from the Office of Academic Affairs and Student Services. Leaves of Absence (LOA) are only granted for extenuating and unusual circumstances and must be approved by the Doctoral Program Committee, the Academic Advisor or the Supervisory Committee Chair, the Associate Dean for Research, and the Dean of the Graduate School. Leaves are granted for a maximum of one academic year at a time. In making a decision to grant a Leave of Absence to a student, The Doctoral Program Committee will take into consideration if faculty resources will be available for students upon return to the College. The committee reserves the right to deny a LOA request. The LOA is void if a student registers for classes in a semester for which a leave was granted. See the University of Utah General Catalog for additional information.

Withdrawal from the University

If a student finds it necessary to withdraw from the University during any semester, an application to withdraw from school should be filed with the Registrar's Office. Failure to do so may jeopardize eligibility for readmission to the University.

Termination/Dismissal

The Doctoral Program Committee may terminate/dismiss students. Reasons for termination or dismissal from the program include, but are not limited to, the following: a) failure to meet grade requirements, b) failure to meet Qualifying Examination requirements, c) failure to progress in the Doctoral Program, d) failure to meet terms of probation, e) violations of the University of Utah Student Code (as outlined in the Code of Student Rights and Responsibilities, (<http://www.admin.utah.edu/ppmanual/8/8-10.html>)), and f) failure to meet Dissertation requirements.

Appeals

The Academic Misconduct and Appeals Committee of the University of Utah College of Health provides students and faculty with a vehicle for the making of decisions relative to student contested academic actions; academic sanctions for misconduct; and dismissals from participating in class. The Committee functions in accordance with the directives outlined in the University of Utah Code of Student Rights at <http://www.admin.utah.edu/ppmanual/8/8-10.html>.