DISCLAIMER

This handbook, which includes parts of the Graduate School Rules, does not constitute a binding contract, either expressed or implied, with the University of Colorado Denver Graduate School nor with the Rehabilitation Science Program. Both the Graduate School and the Rehabilitation Science Program Ph.D. Training Program reserve the right at any time to change, delete, or add to any of its provisions or contents at their sole discretion. Furthermore, the provisions outlined in this document are designed to serve as firm guidelines rather than absolute rules and exceptions may be made on the basis of extenuating circumstance.
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Rehabilitation Science is an interdisciplinary field of study that integrates knowledge from the basic and clinical sciences to improve our understanding of human movement, physical function, and disability across the lifespan. The goal of the Rehabilitation Science (RHSC) Program at the University of Colorado is to prepare future generations of researchers to advance the science and practice of physical rehabilitation. We offer a flexible and interdisciplinary curriculum, with a wide range of courses in the basic and clinical sciences across three University of Colorado campuses. As a student in our program, you will have opportunities for individualized mentorship from nationally recognized scientists representing a variety of specialized disciplines within the broader field of Rehabilitation Science. Examples include Bioengineering, Clinical Science, Endocrinology, Exercise Science, Geriatrics, Integrative Physiology, Internal Medicine, Neurology, Nutrition, Orthopedics, Physical Therapy, and Pulmonary Sciences. This interdisciplinary approach will prepare you to lead collaborative research teams by integrating knowledge from multiple perspectives ranging from the molecular to the systems level to solve complex problems of physical disablement.

In 1990, the National Center for Medical Rehabilitation Research was established at the National Institutes of Health (NIH) to help coordinate a focus on medical rehabilitation research. The Institute of Medicine, a component of the National Academy of Sciences that serves as an advisor for national science policy, established a committee to evaluate the role of Rehabilitation Science and engineering in healthcare. Their 1997 report concluded that “research in the separate health, health professional, and engineering disciplines, although complementary, is not optimally interfaced or balanced…[there is] a need to enhance the federal effort in rehabilitation science and engineering by expanding research, raising visibility, and improving coordination”. In 2005, the Director of the NIH met with six organizations representing a coalition of more than 30 rehabilitation provider and patient groups in a roundtable discussion of strategies to expand the role of Rehabilitation Science within the NIH. Recently, an American Physical Therapy Association task force stated that “a sufficient number of doctoral prepared people with strong research backgrounds is not available to increase the body of knowledge in physical therapy, to meet the standards for academic credibility and institutions of higher education, and to educate the entry-level practitioner of the future. Furthermore, the number of graduate students currently enrolled in doctoral education programs is far below the number necessary to meet future needs.” These are just a few examples of the emerging national focus on rehabilitation research that will demand the skills of our graduates well into the future.

RHSC Program faculty are committed to providing a highly collaborative training environment that will satisfy your scientific curiosity, and help you achieve your professional goals. On behalf of the faculty, I would like to welcome to the University of Colorado and thank you for choosing our program. We look forward to working together!

Sincerely,

Margaret Schenkman, PT, Ph.D.
Interim Director
## CHECKLIST FOR RHSC PROGRAM REQUIREMENTS

### Required Core Coursework (minimum 30cr)

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Units</th>
<th>Sem/YR</th>
<th>Cr.</th>
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<tr>
<td>RHSC 7000</td>
<td>Foundations in Rehabilitation Science (2cr)</td>
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<td>RHSC 7001</td>
<td>Rehabilitation Science Seminar I (1 cr)</td>
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<td>RHSC 7910</td>
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<tr>
<td></td>
<td>Research Ethics (1cr)</td>
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<td>Specialization Electives (5-8cr)</td>
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<td>Spr 2</td>
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**Required Core Coursework (≥ 30cr)**

**TOTAL**

### Required Doctoral Thesis Credit (minimum 30 cr)

*NOTE: Full time enrollment requires min. 5 cr. Fall/Spr + 1cr. Sum

<table>
<thead>
<tr>
<th>Course ID</th>
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**Required Doctoral Thesis Credit (≥30 sch)**

**TOTAL**

### Program Benchmarks

#### Preliminary Examination (June 15 Deadline)
- Required
- Completed:

#### Comprehensive Examination (Oct 1 Deadline)
- Concurrent enrollment in RHSC 8990 (min 5cr) required
- Must petition for examination min. 4 weeks prior to exam
- See requirements for Comprehensive Exam Committee (pg. 20)
- Completed:

#### Thesis Examination
- Concurrent enrollment in RHSC 8990 (min 5cr) required
- Must petition for examination min. 4 weeks prior to exam
- See requirements for Thesis Exam Committee (pg. 22)
- No later than:

### Annual Committee Review

<table>
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<tr>
<td>GTC Academic Review – Yr 2</td>
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<td>Thesis Proposal Meeting with TAC (within 6 mo. of passing Comps)</td>
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CONTACT INFORMATION

FACULTY

Research interests and contact information for current RHSC faculty can be found at:
http://www.ucdenver.edu/academics/colleges/medicalschool/education/degree_programs/pt/EducationPrograms/PhD/Pages/PhDFaculty.aspx

Please note that the RHSC Program is continually expanding its training faculty. If you identify a researcher at the University of Colorado who is not currently affiliated with our program, please contact us for assistance in developing this new collaboration. You can explore research opportunities available on the Anschutz Medical Campus by searching individual departmental websites in your specific field of interest.

Links to all University of Colorado School of Medicine Departments can be found at:
http://www.ucdenver.edu/academics/colleges/medicalschool/Pages/DepartmentsCentersInstitutesOverview.aspx

RHSC PROGRAM STAFF

Margaret Schenkman, PT, Ph.D.
Professor and Interim Program Director
303.724.9375 || margaret.schenkman@ucdenver.edu

Primary contact for: Program, faculty, and curriculum related questions or concerns; Guidance with plan of study and selection of dissertation mentor and examination committees

Kenton Owsley
Graduate School Administrator
303.724.3468 || kenton.owsley@ucdenver.edu

Primary contact for: Recruitment and admissions; Student affairs, including course registration and scheduling of required examinations, seminar presentations, and committee reviews; Administration and tracking of compliance with Graduate School and RHSC Program policies and procedures

Rachelle Waller
Physical Therapy Program Finance Manager
303.724.3101 || rachelle.waller@ucdenver.edu

Primary contact for: Tuition, stipend, and benefit payments for students mentored by faculty with a primary appointment in the Physical Therapy Program (Years 2-5 only; First year students contact Susan Nagel); Human Resource Management; finance, Purchase Orders; Travel; Procurement card; Program Seminar reimbursements

*Note: Students mentored by faculty with a primary appointment outside of the Physical Therapy Program should contact their individual Program or Departmental Finance Manager for all tuition remission and finance related questions.

Blake Humphrey
Information Technology (IT) & Project Manager
303.724.9143 || blake.humphrey@ucdenver.edu

Primary contact for: IT questions or needs
UCD|AMC GRADUATE SCHOOL STAFF

Barry Shur, PhD
Graduate School Dean
303.724.2911 || barry.shur@ucdenver.edu

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Executive Assistant to the Dean
303.724.2911 || milinda.walker@ucdenver.edu
Primary contact for: Scheduling appointments with Dean Shur

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Associate Dean
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Fran Osterberg, MA
Assistant Dean
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Primary contact for: Petition documents for comprehensive and thesis examinations

Jim Finster, MA
Director, Academic Support Services
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Brian Meara
Chief Fiscal Officer
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Susan Nagel
Business Manager
303.724.2917 || susan nagel@ucdenver.edu
Primary contact for: Tuition, stipend, and benefit payments for first year students

Teresa Bauer-Sogi
Admissions and Student Progress Coordinator
303.724.2918 || teresa.bauer-sogi@ucdenver.edu

Valerie Saltou
Postdoc Coordinator
303.724.2930 || valerie.saltou@ucdenver.edu

RHSC PROGRAM MAILING ADDRESS

University of Colorado Anschutz Medical Campus
Rehabilitation Science Program
Education Bldg 2 South, Room 3106
13121 E. 17th Ave
Aurora, CO 80045
OTHER IMPORTANT NUMBERS

Emergency-Police or Fire 911 from Campus landline
Campus Emergency *(using cell phone)* 303-724-4444
Campus Police *(non-emergency/land line)* 303-724-4444 from Campus
Car Escort: 303-724-2000
Admissions and Records: 303-724-8059
Bookstore: 303-724-2665
Bursar’s Office: 303-724-8032
Counseling: 303-556-4372
Dental Clinic: 303-704-6900
Diversity Office: 303-724-8003
E-mail Support: 303-724-2129
Financial Aid: 303-556-2886
Health Insurance: 303-724-7674
ID Cards: 303-724-0399
Library: 303-724-2139
Ombudsman Office: 303-724-2950
Parking Office: 303-724-2555
Student Health Office: 303-724-4674
Student Assistance Office: 303-724-7686
CU Pharmacy: 720-848-1020

Student Services Website:
http://ucdenver.edu/academics/colleges/Graduate-School/student-services/Pages/student-services.aspx
PROGRAM ADMINISTRATION

This Handbook should be used in conjunction with the University of Colorado Denver | Anschutz Medical Campus Graduate School Rules, Policies and Procedures, Student Handbook, Course Book, and other official documents prepared and distributed by the Graduate School. The Graduate School Student Handbook includes general information and rules concerning graduate students, as well as specific information on Honor Code, Leave Policies, and Grievance Procedures. This information applies to students in all graduate programs on the Denver and AMC campuses. The purpose of this handbook is to provide additional information specific to the RHSC program. It is expected that students will be familiar with rules and procedures from both the Graduate School and the RHSC Program.

The Graduate School Student Handbook and Official Forms (e.g. examination, transfer of credit, etc.) can be found at:

http://www.ucdenver.edu/academics/colleges/Graduate-School/program-resources/Pages/forms.aspx

The curriculum, course schedules, and offerings are subject to change. As a general rule, the policies in effect at the time of admission govern a student’s progression. If curriculum changes are made, courses in the current curriculum will be offered for a specified period of time; students who decelerate or otherwise change their program plans may be asked to substitute another course for required courses being discontinued or with insufficient enrollment. All program plan changes will be discussed and approved by the RHSC Graduate Training Committee.

PRIORITIES FOR FIRST YEAR STUDENTS

Both the UC AMC Graduate School and the Rehabilitation Science Program schedule orientation sessions to assist students during their first few days on campus. In addition, the Graduate School will require each new student to complete an online orientation session. Within the first few weeks, new students should schedule a meeting with the Program Director. The purpose of this meeting is to provide an opportunity for students to express any concerns or difficulties they might experience, and ask any questions that have not been addressed in orientation.

The following information is especially important for first year students:

1. Establish a checking account as soon as possible. The University issues all paychecks, including student stipends, as automatic deposits. Students must have a voided check available when filling out payroll forms. Each student is required to produce a driver’s license (or state ID) and a social security card for payroll purposes.

2. Out-of-state residents must obtain documentation to support the Petition for State Residency as soon as possible. First-year students must make collecting this documentation a priority. Funding will be available, assuming satisfactory academic progress, only if the student qualifies for in-state residency after the first year of study. Refer to the following website for specific details: http://www.ucdenver.edu/student-services/resources/registrar/students/policies/Pages/ProofofLawfulUSPresence.aspx. Please note that students admitted through the WICHE program are exempt from the in-state residency requirement. Refer to the following website for eligibility and other information on the WICHE program: http://www.wiche.edu/

3. Each person on campus must carry a UC AMC picture ID. This ID serves many purposes, such as enabling access to offices and laboratories, library, and parking facilities. After arriving on campus, student identification photographs will be taken. If you arrive prior to orientation, the Program badging official and/or the Graduate School Administrator will assist you in arranging an appointment with the ID Access Office.

4. Announcements/Communications. Email is the primary form of written communication both within the Program and the University as a whole. Please check your email daily.
5. When selecting your first research practicum, please be sure to choose a mentor who is located on the Anschutz Medical Campus. While there are varied Affiliated Faculty, located across three University campuses, new students have a full academic schedule and commuting to another campus can be difficult in the first semester. Subsequent practicum experiences may be scheduled with mentors on other campuses.

FINANCIAL SUPPORT AND CONCURRENT EMPLOYMENT POLICIES

Faculty in the Rehabilitation Science Program are committed to ensuring that students complete their graduate studies within a maximum of five years, and maintain a level of productivity that will allow them to successfully compete for grants and employment opportunities upon graduation. To achieve these goals, the faculty has adopted the following policies regarding research funding and supplementary teaching and clinical responsibilities for students enrolled in the Rehabilitation Science Program. Please note that financial support is only available to US citizens who are eligible to apply for federal grants while enrolled in the Program.

1. All students will maintain full-time enrollment status (≥ 5cr/sem); the Rehabilitation Science Program does not accept part-time students. Students seeking part-time graduate studies are encouraged to contact the Clinical Science Program at the University of Colorado Anschutz Medical Campus for additional information.

2. All students will receive an annual cost of living stipend, at a rate determined annually by the UC Graduate School. The standard stipend rate cannot be supplemented by additional monies paid directly to the student from the University or University Hospitals for any teaching or clinical responsibilities performed while enrolled in the Program. Students will also receive a full tuition waiver and health (medical and dental) insurance benefits. This support will cover the cost of Plan A for the student only; the student is responsible for any additional cost of spouse and dependent coverage as needed. Students who can demonstrate evidence of comparable coverage may elect to waive healthcare benefits. For more information about benefit coverage and waivers, contact Payroll and Benefits Services at 303-860-4200.

3. The first year of graduate education including stipend, tuition, health insurance, and student fees will be funded by the Graduate School. Beginning in the second year, these expenses will be supported by a combination of faculty grants, program training grants, Doctor of Physical Therapy (DPT) Program teaching assistantships, external clinical revenue, and/or individual student scholarships. Limited Program funds may be available to support students who have not yet identified a faculty mentor in their second year, or who are affected by a temporary lapse in faculty grant funds. In such cases, supplemental teaching and/or clinical responsibilities will be negotiated between the faculty mentor, student, and Directors of the RHSC and DPT Programs. Funding decisions involving supplemental Program support will be made by the Rehabilitation Science Advisory Committee.

4. All students supported by a cost-of-living stipend are expected to work in an affiliated research laboratory during normal working hours when not attending classes or teaching. This policy applies year-round (i.e., including summer semester), with the exception of official University holidays. Beginning in the second year, students are also expected to teach in the entry-level DPT Program for a total of 83 hours (~2 hours/week on average) during the academic year. Teaching assignments may include, but are not limited to: guest lectures, grading, office hours, lab assisting, and/or tutoring. Students will be assigned to assist with courses that are best matched to their academic and/or clinical experience. Specific teaching hours and assignments will vary depending on the needs of the course coordinator, who will provide mentorship in instructional methods.
Teaching revenues generated by the student will be used to offset training costs incurred by the faculty mentor, with no direct payments made to students. Faculty mentors may elect to buy out of requisite teaching responsibilities by funding a student at the full stipend rate.

5. During the first year of enrollment, students may not schedule clinic hours during normal working hours (M-F, 8AM - 5PM). As an alternative to teaching in years 2-5, students may elect to work part time in the clinic to maintain their clinical skills. In such cases, clinical revenues generated by the student during normal working hours will be used to help offset training costs incurred by the faculty mentor (i.e., tuition, health insurance, student fees). Clinic hours must be negotiated with and approved by both the faculty mentor and the Rehabilitation Science Advisory Committee on an annual basis, and may be discontinued at any time the student fails to make satisfactory progress toward the completion of his or her degree. Concurrent clinic and teaching responsibilities are strongly discouraged, and may only be granted in special circumstances by petition to the Advisory Committee.

6. Students who are awarded individual grants or scholarships in excess of the standard stipend rate are expected to use a portion of their award to help offset training costs incurred by the faculty mentor, which may include but are not limited to tuition, health insurance, student fees, conference travel, and project related costs. The portion of individual student awards to be applied toward faculty training costs must be negotiated in writing between the faculty mentor and student prior to submission of the grant or scholarship application. All students are strongly encouraged to apply for individual grants and scholarships to establish a strong record of grantsmanship and independent funding.

ADMINISTRATION OF FINANCIAL SUPPORT

Continuation of support is predicated at all times on satisfactory academic progress, as determined by the mentor, the thesis advisory committee, and the RHSC Graduate Training Committee. The financial obligation for a student does not rest with the RHSC Program. Each student is responsible for their own books, housing, and any other expenses not specifically outlined above.

First year students must provide the Graduate School Administrator with a copy of their bills following registration for each semester. The Administrator will insure that all appropriate charges on the student bills are paid. Each student is personally responsible for late fees and fines, so it is critical that registration is completed prior to University deadlines and that all requested paperwork is provided to the Administrator in a timely fashion. Students who register after the semester registration deadline set by the Office of Admissions & Records will be assessed a late registration fee, which must then be paid by the student according to policies enforced by the Assistant Dean of the Graduate School.

Financial support will be provided by the sources detailed above as long as the following conditions are met:

1. Maintain satisfactory academic progress.

2. Achieve eligibility for in-state tuition after the first year. Students who fail to qualify for in-state residency will be responsible for the difference between in-state and out-of-state tuition.

3. Pass the Preliminary Examination at the end of the first year.

4. Pass the Comprehensive Examination near the end of the second academic year. Students accepted into the Program as second-year degree candidates must pass the Comprehensive Examination at the end their first year within the Program.
5. Student’s thesis advisor remains able and willing to provide support during the candidacy phase of the Program.

6. Schedule the Thesis Defense within approximately five years of entering the Program.

   a. Graduate School rules require that a student defend their thesis within seven years of matriculation. Otherwise, the student may be required to repeat their qualifying exam.

   b. The NIH generally limits pre-doctoral support to seven years total. Completion of the Ph.D. within five years of matriculation is strongly preferred for continuation of training grants.

LEAVE POLICY

From the NIH. If student funding is obtained from a source other than the NIH, the other funding institution may provide leave guidelines which differ from those outlined above. In such cases, the guidelines from the relevant funding institution shall apply.

1. Vacation and Holidays - Trainees may receive the same vacations and holidays available to individuals in comparable training positions at the grantee or sponsoring institution (refer to the UCD | AMC Graduate Student Handbook available from the Graduate School web site). Trainees shall continue to receive stipend support during vacations and holidays. At academic institutions, the time between semesters or academic quarters is considered an active part of the training period.

2. Sick Leave and Other Leave - Trainees may continue to receive stipends for up to fifteen calendar days of sick leave per year. Under exceptional circumstances, this period may be extended by the awarding component in response to a written request from the training program director or the sponsor. Sick leave may be used for the medical conditions related to pregnancy and childbirth pursuant to the Pregnancy Discrimination Act (42 USC 2000 e(k)).

3. Parental Leave - Trainees may also continue to receive stipends for up to thirty calendar days of parental leave per year for the adoption or the birth of a child when those in comparable training positions at the grantee or sponsoring institution have access to paid leave for this purpose. Either parent is eligible for parental leave. For trainees, the use of parental leave must be approved by the training program director. A period of terminal leave is not permitted and payment may not be made from grant funds for leave not taken.

4. Unpaid Leave - Individuals requiring extended periods of time away from their research training experience, which include more than fifteen calendar days of sick leave or more than thirty calendar days of parental leave must seek approval from the awarding component for an unpaid leave of absence. Approval for a leave of absence must be requested in advance by the training grant program director and be countersigned by an authorized institutional official.

5. Leaves of Absence - During a leave of absence, documentation to suspend the period of appointment must be completed by submitting an amended Statement of Appointment Form and a Termination Notice. These forms should be submitted to the awarding component at the beginning of the leave. At the resumption of grant support, the reappointment must be documented on another Statement of Appointment Form.

DISCIPLINARY ACTIONS

The University of Colorado Anschutz Medical Campus, consistent with most other educational institutions, has a student honor code. The Rehabilitation Science Ph.D. Training Program endorses and enforces this honor code. A student who violates the honor code will be called before the RHSC Graduate Training Committee. The committee will review each case and may assign disciplinary action, up to and including dismissal from the program.

Each student is expected to maintain satisfactory academic progress. A student whose grade point average drops below a 3.0 is placed on academic probation. To be removed from academic probation, a student must achieve a GPA of 3.0 or
above for the academic semester following the semester for which the student was placed on probation, and must achieve a cumulative GPA of 3.0 or above within two semesters of being placed on probation. A student who fails to be removed from academic probation within two semesters will be dismissed from the program.

The student requirements described in this handbook must be met by the deadlines stated. The RHSC Graduate Training Committee (GTC) monitors the progress of each student. If the GTC concludes that a student is not meeting the program’s requirements in a timely manner, they may request a meeting with that student. After review, the GTC may take any actions deemed appropriate, including placing conditions on the student’s continuance in the program or dismissing the student from the program.

If a student is in jeopardy of missing a deadline or believes he or she is not achieving acceptable progress, the student should contact the Program Director immediately. Failure to notify the Program Director of problems in completing requirements can result in dismissal from the program.

CURRICULUM IN REHABILITATION SCIENCE

PROGRAM GOALS

Upon completion of the Rehabilitation Science PhD Program, students will be able to:

1. Critically analyze and integrate research findings from specialized disciplines to address complex problems of physical disablement
2. Design and implement rigorous, innovative, and ethical research that will advance theoretical and/or applied principles of clinical practice in rehabilitation
3. Disseminate findings of original research using standard scientific oral and written formats
4. Compete for funding from national agencies to support interdisciplinary research and educational initiatives in rehabilitation
5. Teach graduate level courses in a selected area of specialization within the field of rehabilitation
6. Effectively communicate with clinicians, research scientists, and students in the field of rehabilitation and its affiliated disciplines using the common language of disablement
7. Serve in leadership roles for professional activities that will advance the science and practice of rehabilitation medicine

COURSEWORK

The Doctor of Philosophy (Ph.D.) degree is the highest academic degree conferred by the University. To state the requirements of the degree in terms of credit hours would be misleading because the degree is not conferred merely upon the satisfactory completion of a course of study, however faithfully pursued. Students who receive this degree must demonstrate that they are proficient in a focused field of study and that they can critically evaluate their own and others’ work in this field; furthermore, they must demonstrate the ability to work independently in their chosen field and must make an original contribution of significance to the advancement of knowledge.

The Graduate School requires a minimum of 30 credit hours of coursework (core, elective, practical, and seminar courses taken prior to the comprehensive examination) and 30 credit hours of thesis/research credits taken prior to the thesis examination. All work undertaken as a graduate student must be in compliance with the academic Code of Honor institution (refer to the UCD AMC Graduate Student Handbook available from the Graduate School web site).

The RHSC graduate curriculum includes didactic core and elective courses, research practicum experiences, and a seminar series. All coursework is completed in the first two years of the Program, and includes foundational instruction in Rehabilitation Science (10 cr), research design, statistical methods, and data management (8-10 cr), scientific writing (1-2 cr), research ethics (1 cr), professional skills (2 cr), and advanced electives pertinent to the student’s primary area of specialization within the broader field of rehabilitation (5-8 cr).
Elective Coursework

Students may choose to specialize in one of five areas: applied cellular physiology, exercise and cardiopulmonary physiology, sensorimotor control, biomechanics, or lifespan studies (e.g., pediatrics/geriatrics). Elective coursework should be selected by the student after consultation with the faculty mentor, the Program Director, and the GTC. Please note that courses from clinical degree programs (e.g., MD, PhD, DDS, RN, etc.) cannot be counted toward the Ph.D. degree. Students may select elective courses offered on the University of Colorado Anschutz Medical Campus, the Boulder campus, and/or the Denver campus. Elective course offerings can be found by reviewing Course Books and schedules available at the following websites:

Graduate School Course books for AMC and Denver campuses
http://www.ucdenver.edu/academics/colleges/Graduate-School/student-services/academic-resources/Pages/calendars.aspx

AMC School of Public Health Course book (search here for advanced statistics electives)
http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Pages/CoursesRegistration.aspx

AMC Clinical Science Program Course book
http://ccts.ucdenver.edu/training-and-education/CLSC/Pages/CourseSchedules.aspx

University of Colorado Boulder Course Listings (search as guest)
http://www.colorado.edu/academics/coursesearch/

Required Coursework

1. BIOS 6601/6602 or 6611/6612, Biostatistics: A sequence of two lecture based courses in applied biostatistical methods including descriptive and statistical inference, odds ratio and relative risk, probability theory, parameter estimation, tests for comparing statistics of two or more groups, correlation and linear regression, univariate linear modeling and multiple regression, and statistics to modeling more complex relationships using linear regression, logistic regression, and Cox regression. The statistical software package SAS is used extensively. The 6611/6612 sequence requires a strong quantitative background in matrix algebra and calculus.

2. Advanced Elective in Statistics or Data Management: Students are required to complete at least one advanced elective course in statistics, database management, or programming to supplement analytic skills acquired in the BIOS 6601/6602 or 6611/6612 sequence. Refer to the AMC School of Public Health Course book for available options. Students with an interest in clinical trials should refer to the AMC Clinical Science Program Course book for additional options in clinical trials research design and analysis.

3. Ethical Conduct of Research: In compliance with NIH policy, all graduate students are required to complete a course in the ethical conduct of research. Options include CLSC 7151 (Lectures in Ethics and Regulations in Human Subjects Review) which focuses on IRB processes for human subjects research, or PHCL 7605 (Research Ethics) which provides a more general overview of research ethics applicable to all biomedical sciences.

4. Scientific Writing: An applied writing and peer review course that prepares students to write research grant submissions. Topics include writing the various sections of grant applications: background, specific aims, hypotheses, methods, analysis, potential problems, and the summary. Options include CLSC 7101 (Grant Writing I) which requires students to complete a full grant application on their thesis topic, or IDPT 7200 (Scientific Writing for Doctoral Students). Students with a specialization in sensorimotor control may also select NRSC 7661 (Grant Proposal Writing Workshop) which includes preparation of an NRSA fellowship application and mock NIH review panel.
5. RHSC 7000, Foundations of Rehabilitation Science: A lecture and small-group discussion course that provides an overview of the field of rehabilitation science and an introduction to disablement frameworks with an emphasis on biopsychosocial models of the enabling-disabling process across the life span. Topics include definitions and domains of rehabilitation science, and the application of disablement models to contemporary problems within the field.

6. RHSC 7002, Professional Skills in Academia: A lecture and small-group discussion course that provides an overview of instructional methods and professional skills for academic educators and scientists. Topics include instructional methods for graduate education, and development of professional skills in communication, management, networking, and promotion for academic careers in Rehabilitation Science. Students participate in doctoral seminars with their peers and faculty to explore professional aspects of their future careers (e.g., publishing, manuscript review, grant review, project management). Mentorship and professional development activities are emphasized.

7. RHSC 7001, Rehabilitation Science Seminar: Two research seminar courses taken within the first two years of enrollment expose students to the breadth of research being conducted by local and national leaders in Rehabilitation Science. Students attend regular seminars by invited speakers, followed by discussion sections in which students assess the implications of each seminar topic on the full spectrum of disablement constructs ranging from pathophysiology to community participation.

8. RHSC 7910/7911, Research Practicum in Rehabilitation Science I/II: Two practical research experiences taken within the first two semesters of enrollment expose students to a variety of experimental tools and techniques available to Rehabilitation scientists. Research rotations are selected by each student with the permission of an affiliated faculty mentor. Each research experience concludes with an oral presentation (post-rotation talk) in which students discuss their research activities and suggest ideas for future research in related areas of the disablement framework.

RESEARCH PRACTICUM

Research practicum rotations are designed to introduce students to a variety of research methodologies, teach approaches to scientific problem solving, and provide an opportunity to explore compatibility with various faculty as potential thesis advisors. Research rotations also provide students with the opportunity to accumulate a variety of different research experiences. Students should approach the research rotations with the primary goal of identifying their future thesis advisors.

Before selecting a thesis advisor, students will complete a research practicum rotation with members of the RHSC Training Faculty in their first two semesters of enrollment. In special instances a third practicum may be completed during the summer of the first year, with permission of the GTC. Rotations can only be completed with RHSC affiliated faculty, except with special permission from the GTC. Students may choose to complete their two rotations with the same or different faculty mentors. Rotations are arranged by the student through consultation with the Program Director and subsequent discussions with the Program faculty member. The RHSC website includes a brief description of faculty research interests to assist students in identifying potential mentors with expertise in their selected area of specialization. Upon identifying a potential practicum mentor, students must obtain approval from the Program Director prior to contacting the faculty member. The student is then responsible for contacting potential practicum advisors and scheduling his/her research rotations in a timely manner. Students may be given the option to select the practicum mentor as their thesis advisor if the faculty member is willing and able to provide training support throughout the dissertation phase of graduate study.
Each practicum rotation requires:

1. A brief (1-2 page) description of the rotation project due no later than the end of the first week. This description must be signed by the Faculty practicum mentor and submitted to the Program Director for the student’s file.

2. A **minimum** commitment of 6-10 hrs/week conducting research in the practicum laboratory. Work hours are arranged individually with the practicum mentor, however, students are generally expected to be present in the laboratory during normal work hours when not attending classes.

3. An oral post-rotational seminar presented on a predetermined date during the RHSC Seminar Series. Post-rotational seminars must include the rationale, methods, and results (or anticipated results) obtained from the rotation project, as well as an interpretation and discussion of the project results and their impact on rehabilitation practice. Ideas for future research directions should also be discussed. Post-rotational presentations typically last fifteen to twenty minutes, with five minutes devoted to questions from the audience.

**Practicum Grades**

Faculty practicum advisors are required to complete an online evaluation at: [http://predocprogress.ucdenver.edu](http://predocprogress.ucdenver.edu). Each rotation is assigned a letter grade. The rotation advisor assigns the initial grade following the post-rotation seminar. Based upon subsequent faculty input, the Course Coordinator may adjust the seminar grade up or down by one-half grade.

**SEMINAR SERIES**

The RHSC Program sponsors a Seminar Series each Fall. Interdisciplinary seminars are selected by the course coordinator and include a variety of topics relevant to Rehabilitation Science, ranging from the molecular to the systems level. Seminars are presented by UCD|AMC faculty members and students, as well as renowned scientists from North America and abroad. Seminars may take place on the AMC, Denver, and/or Boulder campuses. Dates, times, and locations vary each semester, so please refer to the seminar schedule for specific information. Each seminar is followed by a Discussion Session, involving a student-led discussion of the impact of each seminar topic on the broader field of rehabilitation. As part of the seminar series, the RHSC Program also hosts one, full-day distinguished lecture each Fall. Students will have the opportunity to meet individually with the invited lecturer, and attend a journal club to discuss his/her research.

Regular attendance at the RHSC Seminar series is mandatory in the first two years. Additionally, all RHSC students are expected to attend one Distinguished Lecture in Rehabilitation Science each Fall, as well as participate in a journal club and individual meetings with the featured speaker. Finally, all students are required to give an oral presentation describing their current research once a year in the seminar course, as outlined below.

**RESEARCH IN PROGRESS PRESENTATIONS**

Beginning in the second year, RHSC students are required to give an oral presentation on their current research. These ‘Research in Progress’ talks will be scheduled during the RHSC Seminar series in the fall. Presentations must include the rationale, methods, and results (or anticipated results) from an ongoing or planned thesis study. The impact of study results (actual or anticipated) on rehabilitation practice and future research directions should also be discussed. Research in Progress presentations typically last fifteen to twenty minutes, with five minutes devoted to questions from the audience.
CONCURRENT REGISTRATION, TRANSFER CREDITS, AND INDEPENDENT STUDY

Please refer to the AMC Graduate School Student Handbook for specific policies and procedures regarding concurrent registration and transfer credits.

Concurrent Registration
Students may enroll in a maximum of 2 courses (up to 6 semester hours) at the CU Colorado Springs campus and the CU Boulder campus with the approval of the student’s academic dean or designate. Tuition and fees will be assessed at the student’s home campus rate; however, the student must be enrolled for courses on the home campus. Concurrent registration forms must be obtained from the Registrar’s office, Anschutz Medical Campus (Education II North Building, 3rd Floor, Student Services area), then taken to the student’s school/program for the appropriate approval and signature (see Instructions below), and returned to the Registrar’s office. Students may register concurrently during the drop/add period of the host campus. Questions concerning concurrent registration may be directed to the Registrar’s office at 303-724-8056.

Instructions for Concurrent Registration:

1. Complete and sign the Concurrent Registration form (obtained from Registrar's Office)
2. Obtain a signature from the course instructor in the box titled “Host Campus”. **Note**: original signature is required; a pdf stamped signature will not be accepted.
3. Obtain a memo from the PhD program director stating that the course is required for the student’s degree
4. Send the completed concurrent registration form and memo from the PhD director to Fran Osterberg (Fran.Osterberg@ucdenver.edu) for her signature in the “Home Campus Dean’s Signature” box.
5. Send the completed form to the AMC Registrar’s office (Diana.Warren@ucdenver.edu). This form needs to be received by the close of registration at the Host Campus (not the AMC deadline), however early submission is encouraged.

Transfer Credit
Transfer credit is defined as any graduate level credit (5000 level or above in an MS, MA, or PhD program) earned at another accredited institution, or credits earned as a non-degree student within the CU system. Please note that students are permitted to take graduate coursework at Colorado educational institutions outside of the CU System (e.g. Colorado State University) while enrolled in the RHSC Program; however, students will be charged the host institution tuition rate and must petition to have their credits transferred in accordance with the guidelines below. Graduate level coursework taken for a Master’s degree may be applied toward a doctoral degree with Program approval. Please note that courses taken toward completion of a clinical degree (e.g., MD, DPT, OT, RN, etc.) are not eligible for transfer. The maximum amount of work that may be transferred toward a PhD degree at the University of Colorado is 30 semester hours. All work accepted for transfer must have been completed within a seven-year time limit or be validated by special examination. Transfer of coursework must be approved prior the term of the Comprehensive Examination. Before courses can be considered for transfer, students must have an overall grade point average of 3.00 in all courses taken at the University of Colorado in the Graduate School, and must have completed at least one term in residence after matriculation. Courses eligible for transfer must have a grade of “B” or higher, and must not have been previously applied toward an undergraduate degree or another graduate degree on the same level (e.g., M.A. to M.S.). All requests for credit transfer must be approved by the RHSC Program Director and GTC prior to submission to the Graduate School.

Forms and instructions for credit transfer requests are available on the **Graduate School website**.

Independent Study
Students seeking advanced instruction in a specialized area of study that is not currently offered as an elective course may propose an individualized plan of study, taken as an Independent Study elective (RHSC 8900). Credit hours will vary with the scope of the proposal, which must be approved by the GTC prior to enrolling in the course. Independent
Study proposals (1-2 page max) should include Goals, Objectives, and Assessment Criteria for the course, a summary of educational methods that will be used to achieve those goals, the suggested number of credits hours (~20 contact hours/credit), and the name and contact information for the faculty advisor who will oversee and evaluate the student’s performance in the course. A maximum of 6 Independent Study credit hours can be applied toward the PhD degree.

GOOD ACADEMIC STANDING

All UCD|AMC graduate students must maintain an average of "B" (3.0) or better in their course work. Students are expected to earn a "B" (3.0) or better in all required courses. Only in exceptional circumstances may a "B-" in a required course be acceptable, as determined by petition to the Graduate Training Committee. Required courses completed with a grade of below "B-" cannot be counted towards Ph.D. requirements.

Students whose cumulative GPA falls below 3.0 will be placed on Academic Probation by the Graduate School. These students will have two semesters in which to raise their GPA to 3.0 or above and be removed from Academic Probation. The University of Colorado System Rules require that after a student is put on academic probation, s/he must maintain a 3.0 in all subsequent semesters. Failing to meet either condition may be grounds for dismissal from the Graduate School.

The RHSC Program defines “good academic standing” as a 3.0 GPA or higher, with no grade lower than a "B" in any required course. The Graduate Training Committee will undertake a formal review of students who are not in good academic standing at the end of each semester. A grade of "B-" or below in any required course is considered unsatisfactory academic progress, and more than one grade of “B-” or below may be grounds for dismissal from the Program.

A graduate student who receives an unsatisfactory grade in a course may repeat that course once, upon written recommendation from the Graduate Training Committee and approval by the Graduate School (provided the course has not been previously applied toward a degree). The two grades received will be averaged in calculating the grade point average, and all grades received will appear on the student’s transcript. The course may be counted only once toward satisfying the unit requirement for the degree.

CHOOSING YOUR THESIS ADVISOR

Thesis advisors provide individualized mentorship and training for graduate students while completing their dissertation research. The selection of a thesis advisor is one of the most important decisions students will make during the course of their graduate career. Each student must select a thesis advisor from faculty affiliated with the Rehabilitation Science Program. An updated list of RHSC Affiliated Faculty can be obtained from the RHSC Program website. The first year of graduate studies is designed to provide students with an opportunity to interact with the faculty to become familiar with the faculty members and their respective research interests. Students should select a thesis advisor no later than the date of the Preliminary Examination; however, a thesis advisor may be selected at any time during the first year. Thesis advisors are expected to provide full financial support for the student throughout the dissertation phase of graduate training; therefore, it is important to select an advisor who has adequate funding for graduate students. In the unlikely event that a student is unable to select a thesis advisor prior to beginning the Fall semester of their second year, the RHSC Program reserves the right to dismiss the student from the program.

BENCHMARK EXAMINATIONS

There are three benchmark examinations for each graduate student in the RHSC Program. The first examination, given at the end of the first year, is a Program administered Preliminary Examination. The second examination, given at the end of the second year, is a University administered Comprehensive Examination. The third examination, given at the completion of the thesis project, is a University administered Thesis Examination.
PRELIMINARY EXAMINATION

Students are responsible for scheduling their Preliminary Examination no later than the second week of June at the end of their first year. Students should contact the Graduate School Administrator at the end of their first Spring semester to schedule the Preliminary Examination for early June. The Preliminary Exam is a written and oral examination, administered by the Graduate Training Committee (GTC) in the RHSC Program. After full review of the examination, an overall grade of Pass, Fail, or Pass with Conditions will be assigned by the GTC.

The written portion of the Preliminary Examination will be administered on a Program computer, without access to the internet, word processing, or statistical software programs. Students will not be allowed to reference their course notes or textbooks during the examination. Students will be given 3 hours to read and critically evaluate a published research article by providing written responses to questions that require them to apply their general knowledge of Rehabilitation Frameworks, and Research Design and Statistics. Students are strongly encouraged to review concepts presented in RHSC 7000, BIOS 6601/11, and BIOS 6602/12 in preparation for the examination. Written questions will emphasize hypothesis generation based on established rehabilitation frameworks, as well as interpretation of statistical methods and results.

The GTC will review responses to the written portion of the Preliminary Examination prior to administering a 1-hour oral examination. Students will be questioned to clarify any areas of weakness identified in written responses, and to further assess their understanding of rehabilitation frameworks and research design/statistical analysis. Students will also be asked questions designed to assess their critical thinking skills and mastery of fundamental concepts within their area of specialization.

Following the oral examination, students will be asked to leave the room while the GTC discusses their overall performance on both portions of the Preliminary Examination. Students will be evaluated on the accuracy and clarity of their written and oral communication, content knowledge, critical appraisal skills, and their ability to generate and test novel research hypotheses. Students will be informed of the results of their examination (see below) immediately following discussion by the GTC.

SUPPLEMENTAL STUDY RESOURCES FOR CONCEPTUAL FRAMEWORKS IN REHABILITATION

Mastery of conceptual frameworks in rehabilitation is a requisite for graduation from the RHSC program. It is highly recommended that students review the following supplementary study resources. All students will be required to demonstrate their ability to apply established conceptual frameworks and appropriate measures of impairment, activity limitations, and participation in the design and analysis of research hypotheses.

1. **Online course: "The International Classification of Functioning, Disability, and Health: Overview (No CEUs)"

   Go to [http://www.apta.org/](http://www.apta.org/)
   Members and non-members go to the top right of the screen to login/logout
   *Members login and proceed using your member number.*
   *Non-members scroll down to new customers. Register here and complete all of information, including valid email address to allow technical support. Also choose a login and password for yourself. Close out, then login again using new login and password*

   All users:
   Go to the Learning Center [http://learningcenter.apta.org/Default.aspx](http://learningcenter.apta.org/Default.aspx)
   Scroll down to “Online: The International Classification of Functioning, Disability, and Health: Overview (No CEUs)”
   Click “Purchase Now” and go through the process of purchasing this course. The process is the same whether there is a cost or no cost. This course is available at no cost.
   If you have trouble accessing the course, please contact APTA at 1-800-999-APTA.

3. Jette and Schenkman articles at:

4. December 2011 issue of *Physical Therapy* at: [http://ptjournal.apta.org/content/91/12.toc](http://ptjournal.apta.org/content/91/12.toc)

**PRELIMINARY EXAMINATION RESULTS**

**PASS**
Requires affirmative votes from a majority of GTC members

**PASS WITH CONDITIONS**
The committee may feel that, although a student has passed the examination, additional work must be completed to remediate specific areas of weakness. This may be in the form of rewriting submitted work, completing additional coursework, etc. All conditions and associated deadlines for remediation will be provided in writing to the student by the Program Director. The conditions must be satisfied within six months of taking the preliminary examination, and the student will be considered to have "Passed" when all conditions are met. Failure to meet the conditions within the specified timeframe will result in failure of the examination.

**FAIL**
In the event that a student fails the examination, s/he is subject to immediate dismissal from the Graduate School. At the discretion of the RHSC Program, students may be allowed to retake the examination once. The remedial exam will be in a form designated by the GTC and must be completed within six months.

**COMPREHENSIVE EXAMINATION**

Students are required to pass a comprehensive examination to advance to candidacy for the Ph.D. The Comprehensive Examination Committee (CEC) will administer the student’s comprehensive examination no later than Oct 1 in the third year of enrollment. Students must have completed or be enrolled in all required and elective coursework (≥ 30 credit hours) prior to obtaining approval to schedule the Comprehensive Exam. Students must obtain a Ph.D. Application for Candidacy packet from the Graduate School (available on the Graduate School [website](http://www.who.int/classifications/icf/training/icfbeginnersguide.pdf)), which must be completed and submitted to the Program Director, GTC, and Graduate School prior to the examination (see below). Additionally, students must be registered for at least five thesis credit hours during the semester in which the examination is taken (this includes exams taken in the summer semester). Students defending between semesters must register for the subsequent semester.

**COMPREHENSIVE EXAMINATION COMMITTEE**

No more than six months after selecting a thesis advisor and project, the student and advisor must provide a list of recommended faculty members for the Comprehensive Exam Committee (CEC) and Chair to the Program Director and GTC for approval. The CEC is composed of five members, at least three of whom must be RHSC Program faculty (including the thesis advisor), and at least one who must be external to the RHSC Program. The Chair of the Committee must be from the RHSC Program faculty, but cannot be the thesis advisor. The student must submit a completed PhD Application for Candidacy packet to the RHSC Program Director four weeks prior to the exam date. Once approved by the GTC, the Graduate School requires that the student submit this form no less than two weeks prior to the comprehensive examination date.
COMPREHENSIVE EXAMINATION PROCEDURES

The comprehensive examination comprises a written and an oral component. The comprehensive exam topic must be directly related to the anticipated thesis topic, with a scope of work that is feasible to complete in 2-3 years. Students must obtain prior approval of their topic from the Program Director, as well as all members of their CEC.

For the written component, the student must prepare a thesis proposal written in the format of the Specific Aims (Section B.2) and Research Strategy (Section B.3-5) sections of an NIH National Research Service Award (NRSA) grant proposal. The proposal should be seven single-spaced, type written pages, exclusive of citations. The written proposal must be submitted by the student to all members of the CEC at least two weeks prior to the oral examination. Please refer to the following website for specific instructions regarding the NRSA format:


The thesis proposal must be prepared independently by the student, without direct input from the thesis advisor or other affiliated faculty. Although the topic of the proposal is intended to become the proposal for the student's thesis project pending minor modification, it is understood that the proposal is the product of the student, not the advisor. It is not appropriate for students to “cut and paste” from their advisor's R01 or other grant applications/manuscripts to obtain a basis for their own grant proposal. Students may discuss ideas, aims, and approaches with their advisor; however, the intent is for students to compose and defend a unique, independent, and defensible product. Students will need to spend a significant period of time reading the primary literature related to the topic and be able to discuss its relevance to their own proposal.

For the oral component, the student must prepare a 20-minute, oral summary of the proposal in a public forum. This presentation is an opportunity for the student to provide a concise overview of the proposal, and to clarify any changes in thinking between submission of the written proposal and the oral examination. Following the student's presentation and questions from the audience, the CEC will question the student in a closed session. The written proposal serves as a foundation to test the student’s knowledge of a specific research topic, as well as his or her broader understanding of other topics covered in graduate course work up to that point. The student will be expected to answer general knowledge questions on topics both related and unrelated to their proposal. The oral exam will last approximately two hours. At the conclusion of questioning, the student will be dismissed and the Committee will discuss and evaluate performance on the examination in a private session. The student will then be summoned back into the room and informed of the examination results. Within two weeks of completing the Comprehensive Examination, the CEC Chair will submit a progress report at http://predocprogress.ucdenver.edu.

After passing the Comprehensive Examination, students must register for Doctoral Thesis hours (8990). Students must have a continuous registration for a minimum of five (5) semester hours each Fall and Spring Semester and one (1) semester hour each Summer Semester until the Thesis Defense is passed. The minimum number of thesis hours necessary for the Ph.D. degree is 30 semester hours.

COMPREHENSIVE EXAMINATION RESULTS

PASS
Requires affirmative votes from a majority of CEC members

PASS WITH CONDITIONS
The committee may feel that, although a student has passed the examination, additional work must be completed to remediate specific areas of weakness. This may be in the form of rewriting submitted work, completing additional coursework, etc. All conditions and associated deadlines will be provided in writing to the student by the CEC Chair no later than one week after the date of examination. The conditions must be satisfied within six months of taking the comprehensive examination, and the student will be considered to have "Passed" when all conditions are met. Failure to meet the conditions within the specified timeframe will result in failure of the examination.
FAIL
In the event that a student fails the examination, s/he is subject to immediate dismissal from the Graduate School. At the discretion of the RHSC Program, students may be allowed to retake the examination once. The remedial exam will be in a form designated by the committee and must be completed within six months.

THESIS EXAMINATION

THESIS ADVISORY AND EXAMINATION COMMITTEES

Within one month of the passing the Comprehensive Examination, the student must select a Thesis Advisory Committee (TAC) in consultation with the thesis advisor, Program Director, and GTC. The TAC must consist of five UCD|AMC faculty members (including the thesis advisor) with graduate faculty status, at least three of whom must be members of the RHSC Program Faculty. The inclusion of additional Committee members with special expertise from outside UCD|AMC is encouraged if appropriate. The TAC Chair must be an RHSC faculty member, and cannot be the primary thesis advisor. Members of the Comprehensive Examination Committee may be invited to serve on the Thesis Advisory Committee. The TAC must be approved by the Program Director.

The TAC is required to meet as a group with the student at least once each year, and will provide formal permission to write the dissertation once sufficient data have been collected and analyzed. Records of the meetings and of student progress will be kept in a file in the RHSC Program office. These records will include the meeting time, date, place, attendees, overview of material discussed, and recommendations to student. Each record must be signed by the student and TAC Chair prior to submission to the RHSC administrator. Students must take the initiative in scheduling all TAC meetings. If a student fails to have a TAC meeting in the preceding 12 months, s/he will not be permitted to register for subsequent academic terms. Once the student is in compliance with this rule, s/he will be permitted to register. The TAC Chair is responsible for submitting TAC annual progress reports at http://predocprogress.ucdenver.edu.

Although it is recommended that the Thesis Advisory Committee be the same as the Thesis Examination Committee, the two need not be identical. The Thesis Examination Committee will attend the student’s public thesis defense, and will subsequently administer a final oral examination based on both the written thesis and the public defense.

THESIS ADVISORY COMMITTEE (TAC) MEETINGS

No more than six months after the comprehensive exam, each student will schedule a closed Thesis Proposal Meeting with the TAC outlining the rationale for and method of approach to the student’s proposed thesis research project, along with a timeline for completion. The meeting provides both the student and the advisor with an opportunity to receive ideas and constructive criticism from a broad spectrum of individuals, ensuring that the proposed project is both suitable and feasible. Subsequent to the Thesis Proposal Meeting, students must schedule Thesis Progress Update Meetings with the TAC at least once a year. These meetings allow the student to obtain feedback on their progress and results to date, and to inform the committee of any changes to the initial thesis aims, approach, or timeline. The TAC may request a greater frequency of thesis progress meetings at any time it is deemed necessary.

Research in Progress seminars provide an opportunity for the TAC to review the student’s progress and to invite input from faculty and peers, as well as afford the student opportunities to practice their presentation skills. The Research in Progress seminar cannot be used as a substitute for mandatory annual, closed-door meetings with the TAC.
THE DOCTOR OF PHILOSOPHY THESIS

A student must present his or her research results and plans to the TAC at annual meetings after advancing to candidacy. The Program Director, upon recommendation from the TAC Chair, must approve the thesis prior to the defense. Once approved, the student is responsible for scheduling the Thesis Defense. The student must be registered for five thesis credit hours in the semester of the thesis defense and must fill out required forms for scheduling an examination at least 4 weeks before the Thesis Defense date. Students defending between semesters must register for the subsequent semester. Instructions and Requests to Schedule the PhD Thesis Defense can be obtained from the Graduate School Office or website.

The Ph.D. thesis will follow the rules of the University of Colorado. All Ph.D. theses must conform to Graduate School formatting specifications. Consult the Thesis Specifications and the PhD Resources website for specific instructions. Students must also schedule a mandatory thesis pre-check with the Graduate School no later than 2 weeks prior to the Thesis Defense. Students should call 303-724-2915 to schedule a pre-check appointment. One or two formally approved, laser printed copy(ies) of the thesis, plus one additional copy of the title page and abstract, must be submitted to the Graduate School office at least two weeks before the date on which the degree is to be conferred. This date is different than the Thesis Defense date, and can be obtained by contacting the Graduate School regarding the specific date for each graduation period. Regardless of the thesis submission deadline date for any graduation period, the final thesis must be submitted to the Graduate School no later than 60 days after the thesis defense. Students who fail to meet this deadline may be asked to re-defend their thesis. Information regarding electronic submission, fees, and required forms is provided on the Electronic Theses and Dissertations website. Additional information specific to the AMC submission process can be accessed at the bottom of the page, and should be reviewed as well. All questions regarding the electronic thesis submission process should be directed to the Graduate School at 303-724-2915.

The thesis is partial fulfillment of the requirements for the degree of Doctor of Philosophy and is based on original research demonstrating mature scholarship, critical judgment, and familiarity with the methods of research. The quality of the work is to be that upheld by peer reviewed journals in the field. Students must provide each member of the TAC a finalized draft of the thesis at least two weeks before the Thesis Defense date.

The RHSC Program has adopted the following standard format for the written thesis, which may be modified only with prior permission from the Program Director and GTC. Aside from Graduate School formatting specifications (see above), there are no specific formatting requirements or page limitations for the written thesis. Students are encouraged to contact the Program Director to review a variety of theses submitted by RHSC graduates for examples.

Chapter I: Introduction and Specific Aims. Includes a concise overview of the broad conceptual model used to formulate the specific aims of each study included in the thesis project. Specific aims and hypothesis must be explicitly stated, in addition to the projected long term impact on the field.

Chapter II: Background. Includes an exhaustive review and critical analysis of existing literature in the field (e.g. theoretical constructs, experimental approaches, current state of knowledge, etc.), with the goal of demonstrating a comprehensive knowledge of the field and identifying gaps in existing knowledge that will be addressed by the thesis project.

Chapters III-.... Each chapter includes the Abstract, Background, Methods, Results, and Discussion for a single study included in the thesis project. All studies included in the thesis should relate to a common conceptual model, as presented in the Introduction. The contents of each chapter should be consistent with that required for submission of a peer-reviewed manuscript. It is expected that at least one chapter will have been accepted for publication prior to the Thesis Defense, and that all chapters will ultimately be submitted for publication (preferably before the date of graduation). Three to five chapters/studies are generally recommended, although this will depend on the scope of each study included in the thesis project.
Final Chapter: Conclusion. Includes a concise summary and integration of novel findings from the thesis project. Major findings from each study should be highlighted, and discussed in the context of a common conceptual model. Implications for the field of study and future research directions should be included.

For the public Thesis Defense, the student must prepare a 45-minute oral presentation summarizing the Rationale, Specific Aims and Hypotheses, Experimental Approach, Results, and Conclusions for all studies included in the thesis project. Following the public presentation and questions from the audience, the Thesis Examination Committee will question the student in a closed session. The presentation and oral defense will last approximately 2-3 hours. At the conclusion of questioning, the student will be dismissed and the Committee will discuss and evaluate performance on the examination in a private session. The student will then be summoned back into the room and informed of the examination results.

THESIS EXAMINATION RESULTS

PASS
Requires affirmative votes from a majority of Thesis Examination Committee members

PASS WITH CONDITIONS
The committee may feel that, although a student has passed the examination, s/he should complete additional work on the thesis. These conditions will be specified in writing by the Committee, and must be satisfied within 60 days of the defense.

FAIL
A student who fails the examination will be immediately dismissed from the Graduate School.