# MS REHABILITATION TECHNOLOGY PROGRAM AND PROCEDURAL MANUAL

# UNIVERSITY OF PITTSBURGH SCHOOL OF HEALTH AND REHABILITATION SCIENCES DEPARTMENT OF REHABILITATION SCIENCE AND TECHNOLOGY

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### Department of Rehabilitation Science and Technology

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www.shrs.pitt.edu/rst

Dear MSRT Graduate Students,

On behalf of the faculty of the MSRT Program, I welcome you to the University of Pittsburgh. We are pleased that you have selected the University of Pittsburgh as your educational program. We are all invested in your education and successful entrance into the profession. We will work with you to help you become excellent assistive technology professionals, and to meet the rigorous standards of professional education set by the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA) Committee on Accreditation Rehabilitation Engineering and Assistive Technology Education.

This Program represents the beginning of a life-time of learning about assistive technology and rehabilitation engineering for people with diverse disabilities. You will graduate from this program with the basic skills needed for assistive technology and rehabilitation engineering practice and with the skills needed to be life-long learners as well. We encourage self-directed and collaborative learning; interdisciplinary application and reflective practice; and a commitment to evidence-based practice.

Each student will be assigned an advisor who is responsible to counsel you regarding academic issues and professional development. Students will meet with advisors on a regular basis; however, please feel free to also meet with me if you have any questions about your education or any of our policies. We all look forward to the next few years as you begin your professional career in the expanding field of assistive technology and rehabilitation engineering.

Sincerely,

Dan Ding, PhD

Director, MSRT Program

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#### Introduction

This manual provides a framework within which faculty members and students in the MSRT program can function together harmoniously. This document supplements the <a href="SHRS Graduate Student Handbook">SHRS Graduate Student Handbook</a> and <a href="the University of Pittsburgh policies/regulations">the University of Pittsburgh policies/regulations</a> by providing additional information specific to the MSRT program.

Members of any community must have rules and regulations that ensure that the rights and responsibilities of all are explicit and protected. The policies are not intended to be unduly restrictive. These policies represent an instrument to insure that the operation of the program remains consistent with its obligations and its posture as a professional program. All policies herein are in effect for the current academic year. Changes may occur in subsequent years.

By enrolling you as a student in the MSRT program, the faculty has recognized your potential to become a competent and contributing member of the assistive technology profession. We also recognize that you have, and will continue to develop integrity and a commitment to your personal values in your private, academic, and professional life.

We, the faculty and administration, have committed ourselves to encouraging and helping you further develop as an individual and as a professional. Integrity, respect, openness to new situations and people, intellectual curiosity, responsibility for one's actions, and a commitment to ethical practice characterize professional behavior. These components represent our expectations of you as a MSRT student.

You, as the student, should be met with the same integrity, respect and openness by the faculty and administration. Each of us has rights and responsibilities to ourselves, to each other, to our profession, and to our common goals. We will all succeed to the extent that we respect these reciprocal rights and responsibilities.



#### **Program Faculty and Staff**

\*You can find more information about our faculty and staff including their experience and research interests on our website.

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#### **Program Overview**

The University of Pittsburgh, founded in 1787, is one of oldest institutions of higher learning in the United States. The University of Pittsburgh strives to be a Leader in Education, Pioneer in Research, and Partner in Regional Development.

The Master of Science Program in Health and Rehabilitation Sciences with a concentration on Rehabilitation Science and Technology (MSRT Program) of the University of Pittsburgh is located in the Department of Rehabilitation Science and Technology (RST) within the School of Health and Rehabilitation Sciences (SHRS). SHRS has a wide variety of other first professional healthcare degree programs, including physical therapy, occupational therapy, speech and audiology, athletic training, health information management, physician assistant studies, mental health counseling, prosthetics and orthotics, and clinical dietetics and nutrition. Several of these programs are among the most highly ranked programs in the nation. SHRS also offer PhD degrees in Rehabilitation Science and in Communication Sciences, respectively.

The MSRT program was established in September 1994 and was situated in Forbes Tower of the University of Pittsburgh main campus until 2012 when the program moved to Bakery Square, a technology park located off campus which also houses Google and other tech companies. The facility is high-tech and includes both academic and research space.

The MSRT program is designed to prepare graduates to assume professional responsibilities in the field of assistive technology as rehabilitation technology suppliers, service providers, rehabilitation engineers, design engineers, and consultants. The program also prepares students for the exams for <u>Assistive Technology Professional (ATP)</u> and <u>Seating and Mobility Specialist (SMS)</u> certifications from the <u>Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)</u>. The degree presents a balance between a clinical rehabilitation preceptorship and practical engineering instruction. The multidisciplinary approach assures that the student receives a balanced exposure to clinical rehabilitation and gains technological understanding and an appreciation of scientific principles.

It is a 44-credit program with thesis and non-thesis options. A typical plan of study includes a common set of core courses and some elective courses. The specific choice of elective courses required for graduation depends upon each student's advisor and the background of the student within the framework of the University requirements. Students in the program conduct rehabilitation technology and engineering assessment, participate in clinics and rounds, work with consumer groups, perform research, design assistive devices, and present at seminars or conferences. The curriculum is also designed to accommodate the knowledge and experience of practicing rehabilitation professionals returning for an advanced degree. Students with training in other disciplines may take courses that complement their previous training. MSRT students could obtain a graduate Certificate in Assistive Technology upon graduation if courses are taken to meet the certificate requirement.

#### **Advisement and Mentoring**

#### Registration

Upon acceptance into the program, students will be asked to fill in a <u>supplement form</u>. This is where students can indicate which faculty member(s) they are interested in working with. Based on the mutual interests of faculty and students, we will assign a faculty member to be the advisor. Prior to the beginning of the semester, it will be the student responsibility to schedule a visit to meet with the advisor. At this point students will work with their advisors to design a preliminary <u>Plan of Study</u>. The preliminary <u>Plan of Study</u> should be on file with Amy Donovan (<u>adonovan@pitt.edu</u>) by Oct 1, and can be revised as needed in subsequent semesters.

Students registering for the first time will be advised to complete the enrollment process before the beginning of the term. Typically, the first day of classes is the last day for students to enroll. Students who enroll after the first day of the term will be assessed a late registration fee. Most students have the ability to utilize self-service enrollment tools available through the Student Portal or Pitt PS Mobile. Continuing students with the ability to utilize self-service enrollment will be assigned an enrollment appointment during the first two weeks of the enrollment period. Once students have enrolled, they may view their class schedules online via the Student Portal or Pitt PS Mobile. Students are responsible for scheduling an appointment with their advisors every semester to register for classes. Registration periods can be found in the academic calendar for each year – students are responsible for knowing the registration deadlines to avoid financial penalties. Students can also refer to the University of Pittsburgh Graduate Bulletin section on "Registration" for more information.

#### **Curriculum Planning**

Each student must earn a minimum of 44 credits to graduate. Students should meet with their advisors in the beginning of the first semester to map out the courses they intend to take through the Master's program and fill out the preliminary <u>Plan of Study</u>. This preliminary plan can be revised as needed in subsequent semesters.

There are two common pathways for completing the MS degree. This is mostly dependent on whether a student selects the academic track or research track.

- Students who take the academic track may take one year (three semesters) to complete the program and should follow the <u>suggested timeline</u>. Please note that in this option, students will need to take more than 15 credits for the fall and spring semesters, respectively, and should expect to be billed for each additional credit that exceeds the full-time tuition rate (i.e., 15 credits). Students also need to take the 6-credit clinical internship in the summer term.
- Students who take the research track may take up to two years (5-6 semesters) to complete the program and should follow the <u>suggested timeline</u>. Students who are interested in taking the clinical internship in the summer term should register for at least one-credit.
- Alternative timelines must be approved by advisor and Program Director prior to the start of the program.

Course descriptions are located in Appendix A. If students want to take additional classes beyond 44 required credits, they should discuss this option with their advisors.

#### **Course Schedule**

The curriculum is designed to enable the student to obtain the essential knowledge, skills, and attitudes necessary to function effectively as a rehabilitation professional. Most courses are one evening per week for 3 hours (usually either from 4:00 – 7:00 pm or 5:00 to 8:00 pm). A few courses (e.g., HRS 2704 lab session, HRS 2706, HRS 2718, and HRS 2724) are offered during the day instead of evenings. Most required courses are offered once per academic year. To view the specific course schedules (days and times) for all semesters, please visit: <a href="https://psmobile.pitt.edu/app/catalog/classSearch/">https://psmobile.pitt.edu/app/catalog/classSearch/</a>

#### **Clinical Internship**

Clinical internship (HRS 2910) involves a minimum of 240 hours of supervised assistive technology experience (e.g., assessment, development, training, evaluation and follow-up regarding assistive technology) in an external site that provides assistive technology services to people with disabilities. Supervision should be provided by a certified Assistive Technology Professional (ATP). Dr. Alicia Koontz coordinates this course. Students should work with her to identify a site of interest and devise a plan for this experience.

#### **Scholarly Paper or Thesis**

The comprehensive examination of the MSRT program takes the format of either a scholarly paper or master's thesis. Each showcases a student's cumulative knowledge and professional growth through in-depth review and analysis of a specific topic related to the field of assistive technology and rehabilitation engineering.

The thesis option requires students to complete a report of an investigative study conducted by the student during his/her graduate program. It is often associated with a funded research project from the faculty advisor and requires the student to conduct research for at least 20 hours per week over the course of the study.

- Students will register for HRS 2924 and HRS 2925 for taking the thesis option.
- Students may be participating in a number of research activities such as design and development, bench-top testing, preparing for human subject testing, subject testing, data collection, and data analysis.
- The detailed process and instructions can be found at on <a href="SHRS Graduate Student Handbook">SHRS Graduate Student Handbook</a> (pg. 14-15)
- Students are required to submit the finished thesis to the committee two weeks before a scheduled oral defense. Students will be responsible to schedule the oral defense and work with Amy Donovan (<a href="mailto:adonovan@pitt.edu">adonovan@pitt.edu</a>) to reserve a room. The oral defense consists of a 30-45 minute presentation on salient aspects of the thesis and an opportunity for committee members to ask questions. The overall timeframe is 1-1.5 hours.
- The thesis will be graded using the satisfactory/no credit (S/NC) grading option based on the written report and oral presentation.
- Some sample theses from previous MSRT students can be found at <u>Sample 1</u>, <u>Sample 2</u>, and <u>Sample 3</u>.

The non-thesis option may take a number of formats based on student background, experience, and career goals. It may take a format of a literature review, program development, product design, curriculum design, case analysis, or other project as approved by the academic advisor and members of the student's Scholarly Paper Committee. The topic should be relevant to one or more major domains of assistive technology and rehabilitation engineering such as clinical evaluation of assistive technology, assistive technology funding and policy, psychosocial aspects of disability, and participatory action design.

- Students will register for HRS 2926 (3-credit) for taking the scholarly paper option.
- With the guidance of the academic advisor, students identify a scholarly paper committee and chairperson. By default, the chairperson is the academic advisor. However, if there is another faculty member more expert in the proposed topic, it may be determined that alternative faculty take the role of chair. The committee should consist of at least three faculty including the chair. Additional individuals outside the University of Pittsburgh faculty may also serve on the committee as relevant.
- In consultation with the chair and committee members, students discuss possible topics and formats for the scholarly paper. There are not specific requirements on the content, style, length, and format of the scholarly paper. Students will work with the chairperson and the committee members to ensure appropriateness.
- In addition to the written part, students will need to defend the scholarly paper with the committee. Students will be responsible to schedule the oral defense and work with Amy Donovan (adonovan@pitt.edu) to reserve a room. Students will submit the finished paper to the committee two weeks before a scheduled oral defense. The oral defense consists of a 30-minute presentation on salient aspects of the paper and an opportunity for committee members to ask questions. The overall timeframe is 1-1.5 hours.
- The final scholarly paper must include the Scholarly Paper Cover Sheet (pg 18 of <u>Graduate Student Handbook</u>). Students must submit a copy of the signed Scholarly Paper Cover Sheet to SHRS Student Services.
- The final scholarly paper will be graded using the honors/satisfactory/unsatisfactory (H/S/U) grading option based on the written report and oral presentation.
- Some sample scholarly paper from previous MSRT students can be found at <u>Sample 1</u> and <u>Sample 2</u>.

#### Change of Schedule and/or Withdrawal from Courses

While the last date for adding and dropping courses is generally within the first two weeks of a semester, it is the student responsibility to identify registration deadlines. Students who do not drop classes within the first two weeks of class may also request a monitored withdrawal.

#### **Faculty Accessibility**

It is the goal of the faculty to be accessible to each student. Faculty contact information is located in the beginning of this manual. While the faculty generally try to maintain an open door policy, they may not always be able to meet with students without prior notice. If

students wish to meet with a faculty member, they should email to set up an appointment time.

#### **Grading**

Grading policies are located in every course syllabus. Grading standards may vary between instructors and/or courses. Please refer to the University of Pittsburgh Graduate <u>Bulletin</u> section on "Grading and Records".

#### **Minimum Academic Standard**

- All required and prerequisite coursework must be taken for a grade when letter grade option is available, unless approved by the Department Chair/Program Director.
- Students must receive a grade of C or better in all courses required by their program curriculum. Students who receive a grade below a C in a required course must repeat that course and attain a grade of C or better to graduate.
- Students will not be permitted to register for a course until they attain a C or better in its prerequisites.
- Failure to receive an acceptable grade after the second opportunity to complete a required course may result in the student being dismissed from the program.

#### **Academic Probation**

Students are expected to maintain a 3.0 GPA and must meet this minimum standard in order to graduate. Any student whose cumulative GPA falls below a 3.0 at any point will be placed on academic probation. Students will have one additional semester to bring their GPA up to 3.0 or demonstrate progress to support an additional semester to raise their GPA. Students who fail to bring up their GPA may be dismissed from the program.

#### **Transfer Credits and Testing Out**

Students wishing to transfer credits from another graduate program (up to 6 credits may be accepted) should meet with their advisor to discuss which courses may transfer. In some cases, students may test out of classes and receive credit for the class. Testing out is decided on a case-by-case basis and is not guaranteed. Any questions concerning this should be discussed with the Program Director.

#### **Academic Calendar**

Please review the University's <u>academic calendar</u>. It is important that students know the start of the semester, and date of the first class. Also, it is extremely important that students know the final day of the semester, so that they can complete and turn in all required assignments, in order to receive a grade for the course.

#### **Required Training and Modules**

We have developed a checklist which helps students track the following required documents. Students are responsible to make sure all the required documents are in place prior to the start of research and/or clinical activities. Students should send the completed documents to Amy Donovan (adonovan@pitt.edu) prior to the date dates specified below and in the checklist.

#### **RPF Modules**

The Education and Certification Program in Research & Practice Fundamentals (RPF) has been designed to provide training to individuals at the University of Pittsburgh, and its affiliated institutions, who wish to participate in research activities. The RPF program also includes several modules covering Health Insurance Portability and Accountability Act (HIPAA) requirements. The following modules are required for all students in MSRT program.

CITI Responsible Conduct of Research	Every 4 years	http://www.citi.pitt.edu
CITI Human Subjects Protection:	Every 4 years	http://www.citi.pitt.edu
Biomedical OR Social-Behavioral-Education		
CITI Conflict of Interest	Every 4 years	http://www.citi.pitt.edu
CITI Privacy and Information Security	Every 4 years	
Bloodborne Pathogen (BBP) (Formerly RPF	Annually	http://cme.hs.pitt.edu
Module 9)		
Responsible Literature Searching (Formerly	No expiration	http://cme.hs.pitt.edu
RPF Module 11)		

All graduate students must complete the education modules. Each training module takes approx. 20-60 minutes to complete, and requires that a quiz/test be taken and passed with a score of 80% or better. Upon passing, students will have the option to print the certificate of completion for each module. These documents should be turned in electronically to Amy Donovan (adonovan@pitt.edu). Students should also keep a copy for their own records as well. Students are advised to keep track of the username and password created so that they can access the account at a later date, to retrieve any certificates that they have received. Final deadline for completing the modules is October 1st. Participation in research or clinical activities may require immediate completion of the relevant modules.

#### **Plagiarism**

Students are required to take and pass an academic integrity module that focuses on appropriate documentation and plagiarism. A plagiarism tutorial can be found at the following website: <a href="http://www.umuc.edu/current-students/learning-resources/academic-integrity/tutorial/interactive.html">http://www.umuc.edu/current-students/learning-resources/academic-integrity/tutorial/interactive.html</a>. At the end of the tutorial, students will be asked to take a quiz consisting of 10 questions. Upon passing, studnets will have the option to print the certificate of completion. This should be turned in electronically to Amy Donovan (adonovan@pitt.edu). Students should also keep a copy for their own records.

#### **Conflict of Interest**

A Conflict of Interest form must be completed yearly by all faculty, staff, and students associated with the University of Pittsburgh. Directions will be emailed out during the spring semester of every year.

#### **Liability Insurance**

As part of the tuition package, each student is covered under the University of Pittsburgh's liability insurance. Some internship sites may request a copy of liability insurance, which could be arranged with Dr. Koontz. In some circumstances, some sites may require

students to purchase additional liability insurance, either through a private insurance company or through other relevant agencies.

#### **Health Forms**

Students are required to have a physical examination, including specific immunizations, completed <u>prior</u> to beginning clinical education <u>and</u> repeatedly annually. The examining physician is to document the exam and proof of required immunizations on the SHRS Initial Health Form (first time) and SHRS Annual Health Form (subsequent years). The forms can be found in the Program Box Folder. Once completed, the student must submit the signed form to Amy Donovan (<u>adonovan@pitt.edu</u>) by October 1. The address of the Student Health Service is:

Office of Student Health Service Nordenberg Hall - Wellness Center 119 University Place Pittsburgh, PA 15260 Phone: 412-383-1800

#### Student Agreement to Participate in Clinical Education Release of Information Form

Students are required to complete this form prior to any clinical education in the program. The form can be found in the Program Box Folder.

#### **Other Requirements for Clinical Internships**

- 1. Students must provide proof of HIPAA training and certification. The procedure for completing HIPAA certification is as follows:
  - Go to: <u>https://cme.hs.pitt.edu/ISER/servlet/IteachControllerServlet?actiontotake=loadmo</u> dule&moduleid=6381
  - Create an account and log-in
  - Complete the following module: UPMC Information Privacy & Security Awareness Training for Students, Trainees, Health Professionals & other Individuals who are not UPMC employees
  - After successfully completing the quizzes, print the certificate of completion for the module and submit to Amy Donovan (adonovan@pitt.edu).
  - The certification expires after 3 years.
- 2. Students are required to carry personal health insurance while participating in clinical education. For those interested, the University has joined with UPMC Health Plan to provide the UPMC Health Plan for Pitt Students. For information on this insurance plan, please go to <a href="http://www.studentaffairs.pitt.edu/shs/insurance/">http://www.studentaffairs.pitt.edu/shs/insurance/</a>.
- 3. Students are required to have a Pennsylvania Criminal Record Check completed prior to beginning any clinical education. Please see the following website to complete the <a href="Criminal History Request Form">Criminal History Request Form</a> to initiate the process.
- 4. Students are required to have a Pennsylvania Child Abuse Clearance completed prior to beginning any clinical education. Please see the following website to

- complete the <u>Pennsylvania Child Abuse History Clearance Form</u> to initiate the process.
- 5. Students are required to obtain CPR Training and Certification prior to any clinical education. If a student's CPR certification expires prior to the end of clinical education, the student will need to re-certify. Certification can be obtained from the Center for Emergency Medicine (<a href="http://www.centerem.org">http://www.centerem.org</a>) or the American Heart Association (<a href="http://www.americanheart.org">http://www.americanheart.org</a>).
- 6. Students must comply with the assigned clinical facility's dress/appearance code.
- 7. Some clinical sites may have additional requirements that must be met to be eligible to participate in clinical education. Students will be responsible to obtain the clearance from the sites prior to the start of the internship. These requirements may include:
  - Completion of a FBI Background Check or Criminal Record Check from another state
  - Drug screening
  - Attendance at a clinical facility orientation session
  - Any other requirements as specified by the clinical facility.

#### **Student Organizations**

MSRT students have the opportunity to participate in several student groups.

- Students for Disability Advocacy (SDA) is an advocacy and support group for University of Pittsburgh students with or without a disability. This student organization was established and run by RST students. SDA advocates for more diversity, inclusion, and accessibility for all students, in academic, clinical, community, social, and research settings. SDA seeks to promote an intergenerational community among incoming students, current students and alumni with disabilities. The group is designed to create an optimal venue to exchange knowledge and wisdom while fostering academic and social interaction among its members. SDA serves the University of Pittsburgh by promoting an inclusive and diverse community of scholars. Check <a href="https://m.facebook.com/PittDisabilityAdvocacy">https://m.facebook.com/PittDisabilityAdvocacy</a> for more information.
- The Rehabilitation Science & Technology Graduate Student Organization (RSTGSO) is established by MSRT and RST PhD students that aims to assist, support and organize University of Pittsburgh students interested in the field of Rehabilitation Sciences & Technology and to promote the field of Rehabilitation Technology in academic, clinical and community service, and research settings. RSTGSO also focuses on promoting cohesion between the program and the University of Pittsburgh, their incoming students, current students and the alumni of The School of Health and Rehabilitation Sciences Department of Rehabilitation Science & Technology, creating an optimal venue to exchange knowledge and wisdom related to RST while fostering academic and social interaction among its members.

RSTGSO organizes an annual networking event that brings together working professionals in the field including those from our internship sites, and RST students, staff, and faculty. RSTGSO also runs a peer mentor program where each incoming student will be paired with an existing student who will the new students get familiar with all procedures and share experience.

#### **Student Code of Conduct**

#### **Academic Integrity**

Students are expected to comply with <u>the University of Pittsburgh's policy on Academic Integrity</u>. A student has an obligation to exhibit honesty, and to respect the ethical standards of the profession in carrying out his or her academic assignments. Without limiting the application of this principle, a student may be found to have violated this obligation if he or she:

- 1. Refers during an academic evaluation to materials or sources, or employs devices, not authorized by the instructor.
- 2. Provides assistance during an academic evaluation to another person in a manner not authorized by the instructor.
- 3. Receives assistance during an academic evaluation from another person in a manner not authorized by the instructor.
- 4. Engages in unauthorized possession, buying, selling, obtaining, or using of any materials intended as an instrument of academic evaluation in advance of its administration.
- 5. Acts as a substitute for another person in any academic evaluation process.
- 6. Utilizes a substitute in any academic evaluation procedures.
- 7. Practices any form of deceit in an academic evaluation proceeding.
- 8. Depends on the aid of others in a manner expressly prohibited by the instructor, in the research, preparation, creation, writing, performing, or publication of work to be submitted for academic credit or evaluation.
- 9. Provides aid to another person, knowing such aid is expressly prohibited by the instructor, in the research, preparation, creation, writing, performing, or publication of work to be submitted for academic credit or evaluation.
- 10. Presents as one's own, for academic evaluation, the ideas, representations, or words of another person or persons without customary and proper acknowledgment of sources.
- 11. Submits the work of another person in a manner that represents the work to be one's own.
- 12. Knowingly permits one's work to be submitted by another person without the instructor's authorization.
- 13. Attempts to influence or change one's academic evaluation or record for reasons other than achievement or merit.
- 14. Indulges, during a class (or examination) session in which one is a student, in conduct that is so disruptive as to infringe upon the rights of the instructor or fellow students.
- 15. Fails to cooperate, if called upon, in the investigation or disposition of any allegation of dishonesty pertaining to another student, or any other breach of a student's obligation to exhibit honesty.

#### **MSRT Student Code of Conduct**

- 1. Through their acts and words, both oral and written, MSRT students shall respect the rights and dignity of all individuals.
- 2. MSRT students will act in a trustworthy manner towards others, including all faculty, staff, peers and patients.
- 3. MSRT students will attend all MSRT program classes for which they are registered.
- 4. MSRT students will arrive for class, clinic visits, clinical experiences or any other assigned meetings/gatherings on time.
- 5. MSRT students will turn in every assignment made by a faculty member to that faculty member on time and in a completed condition.
- 6. MSRT students will demonstrate a positive attitude toward all curricular requirements.
- 7. MSRT students will take responsibility for reading and following the syllabus for each course they take.
- 8. MSRT students will take responsibility for their actions by accepting the consequences of their choices and responding in a mature manner.
- 9. MSRT students will assume the role of adult learners by taking initiative in the learning process and seeking help from the faculty or other resource(s) when it is needed.
- 10. MSRT students will engage in learning and implementing the practice of self-assessment and professional development.
- 11. MSRT students will assist in maintaining laboratory and classroom cleanliness.
- 12. Cell phone use in the classroom or lab during presentations **is prohibited.** If you are texting or on your cell phone, *you will be dismissed from class for the day*.
- 13. The use of head phones are ear buds **are prohibited** in the classroom and lab.
- 14. Photos, selfies, videos and audio recordings **are prohibited** unless permission has been granted from the Instructor.

#### **Professional Behavior**

Program faculty members recognize that a student accepted into the professional program has the potential to become a competent and contributing member of the profession. In the process of becoming a professional, the student accepts certain responsibilities. One responsibility is the development of professional behavior. Integrity, respect, openness to new situations and people, intellectual curiosity, responsibility for one's own actions, and a commitment to ethical practice characterize professional behavior. These are components of professional behavior expected of MSRT students and are competencies in the program.

Students who fail to demonstrate appropriate professional and ethical behaviors are subject to being placed on probation or dismissal. The following procedure is designed to identify and address inappropriate or unprofessional behaviors.

# <u>Procedures for Identification and Remediation of Unprofessional Behaviors and Remediation</u>

Standards for professional conduct of University of Pittsburgh MSRT students are described in the MSRT Program Manual (page15). Students are to conduct themselves according to these standards at all times, in both academic and clinical settings.

Examples of unprofessional behaviors include but are not limited to the following:

- Unexcused and/or repeated tardiness are not acceptable
- Unexcused and/or repeated absence from class, clinical visits/assignments or other faculty-assigned meetings
- Disrespectful communication with faculty, peers, staff, or patients
- Late or incomplete assignments
- Disregard for University and/or MSRT Program policies and procedures

Students are allowed three (3) excused absences per term. Students are required to contact their instructor prior to missing class and retain written proof of excuse. (i.e. email) Tardiness is not acceptable. Three tardy / late arrivals to class will result in an unexcused absence. Three unexcused absences will result in a decrease of one letter grade. Remediation steps will be taken as needed on a case by case basis.

When any academic or clinical faculty member identifies and documents an instance of unprofessional behavior, the following procedures will be followed:

- 1. The faculty member meets with the student to identify the unprofessional behavior, and counsels the student to demonstrate conduct consistent with the standard.
- 2. If the faculty determines that the student subsequently fails to meet the professional conduct standard, the faculty member, student, and program director meet to further counsel the student to demonstrate conduct consistent with the standard and the student is given a letter of concern documenting the pattern of behavior and dates of counseling. The letter will state that the student must meet with his/her advisor to develop a remediation plan. The letter will also state that if the student is not successful in completing the remediation plan or is not able to meet the professional conduct standard by the date specified, as observed by the faculty, the student will be placed on probation.
- 3. The terms of the probation will include that the student is required to meet with his/her advisor. At that meeting, the student, assisted by the advisor, develops a remediation plan, including the required date of completion. A written copy of the plan will be signed by the student and faculty advisor indicating readiness for implementation. The student and faculty advisor will each retain a copy of the signed plan for future reference
- 4. The student is required to implement the remediation plan and complete it by the date specified.
- 5. If the student is not successful in completing the remediation plan by the date specified or is not able to meet the professional conduct standard by the date specified, as observed by the faculty (including clinical faculty), program director and/or advisor, the student will be dismissed from the program.

#### **Other Relevant Items**

#### **Conferences**

Students may have opportunities to attend assistive technology (e.g. RESNA or ISS) or other domain-specific conferences (e.g. BMES or ASME) throughout their academic career. Students should talk with their advisors about these opportunities and potential

sponsorship. Students may also apply for the Bruce Baker Travel Fund offered by the School of Health and Rehabilitation Sciences. Program Director will solicit applications each fall and students should respond by submitting the <u>application form</u> before the stated deadline.

#### **Authorship**

Students submitting work completed through classes or projects in the MSRT program must give credit to faculty members associated with the project. Students wishing to present their scholarly papers must include committee members as contributing authors. All students <u>must</u> submit conference proposals to their advisor for review prior to submitting to a conference. Guidelines for authorship credit are found in the APA Publication Manual. For students working at HERL, additional steps may be required if VA funding supports the study. Please see Michael Lain (<u>michael.lain@pitt.edu</u>) for these requirements.

#### **APA Style**

The Rehabilitation Technology program generally follows guidelines set for by the American Psychological Association (APA). Students should follow APA style guidelines for writing papers unless otherwise instructed by the advior, a journal or a conference guideline. Each student should obtain a copy of *American Psychological Association Publication Manual, Sixth Edition*.

#### **Tuition**

Upon the acceptance and class registration, the tuition bill will be issued. The tuition and fees associated with each semester will vary. For a complete listing of rates, please follow this link <a href="http://ir.pitt.edu/graduate-tuition/">http://ir.pitt.edu/graduate-tuition/</a>.

#### **Billing**

The University no longer has paper billing, so all statements will be issued electronically. Once students receive the username and password, they will be able to access the financial account through <a href="may.pitt.edu">my.pitt.edu</a> (under my communities, select student services, and then PittPAY). Students may also refer to

https://catalog.upp.pitt.edu/content.php?catoid=6&navoid=39#tuition.

#### **Payment**

Since there is no paper billing, the University's preferred method of payment is through PittPAY (online payment authorization). It should be noted however, that there is a 2.75% service charge when a credit or debit card is used. There is no fee if students pay using an eCheck, from an existing checking account. Online payment can be made at <a href="may.pitt.edu">my.pitt.edu</a> (under my communities, select student services, and then PittPAY). To read more about financial services at the University of Pittsburgh, please visit <a href="http://www.bc.pitt.edu/students/">http://www.bc.pitt.edu/students/</a>.

#### **Applications for Graduation**

Students must submit an <u>application for graduation</u> in the beginning of the semester they intend to graduate. Most students who enroll on a full-time basis and begin in the fall semester will graduate in August. Students can opt to walk during the April graduation ceremony in the semester prior to beginning their internship (or completing their research

activities at the lab) during the summer semester. In this case, students will NOT actually graduate in April and should apply for August graduation. Graduation deadlines will be communicated to students through the registrar's and dean's offices. It is student responsibility to be aware of these deadlines.

#### Libraries

There are numerous library systems here on campus, including the two libraries that students will most often utilize, i.e., Hillman Library (General) and Falk Library (Health Sciences). In addition, there are many other discipline-specific libraries. Locations of these libraries can be found on the <u>campus map</u>. In order to check out books and journals from these libraries, it is necessary that students have their Pitt ID.

**Pitt Digital Library:** Many of the services that can be found within the actual library can also be accessed online at <a href="http://www.library.pitt.edu">http://www.library.pitt.edu</a>. The following are a list of online resources:

- **PITTCat:** PITTCat is the online card catalog of the University of Pittsburgh libraries. Over 3 million titles can be found in PITTCat including books, periodical titles, microforms, dissertations, electronic resources, government documents, maps, musical scores, and audiovisual materials.
- **D-Scholarship Institutional Repository:** D-Scholarship@Pitt is an institutional repository for the research output of the University of Pittsburgh, where you can find electronic theses and dissertations, research papers (published or unpublished), and other research related materials.
- **Databases:** This resource provides you with a description of each database and allows you to search for journal articles or books within specific databases or based on subject content.

Health Sciences Library System: Falk Library is the actual physical location for the Health Sciences Library System(HSLS), and is located in Scaife Hall (see <a href="mailto:campus map">campus map</a>). However, similar to the general library system, many of the services that can be found within Falk Library can also be done online from a remote location (<a href="http://www.hsls.pitt.edu/">http://www.hsls.pitt.edu/</a>). Links on this site allow students to access medically oriented online databases and electronic journals.

**Connecting to Online Library Resources:** All online library resources are available from any campus computer. It is also possible for any Pitt student, faculty or staff member to access most library databases and electronic journals when off-campus. The Computing Services and Systems Development (CSSD) has deployed a secure remote access solution to permit University students, faculty, and staff to access restricted University online resources. Students can use <a href="http://sremote.pitt.edu">http://sremote.pitt.edu</a> with the Pitt account and password to access this service.

#### **Computer Services**

#### **Computer Labs**

SHRS maintains two computer labs on the  $4^{th}$  and  $6^{th}$  floor of Forbes Tower. These labs include workstations that are available to the School's students for general use when class

is not in session in the lab. Students have access to some of the latest hardware and software available, including specialized statistics and medical software. Please note that this lab is restricted to SHRS students only. Information about the SHRS lab hours can be found at <a href="http://www.shrs.pitt.edu/support.">http://www.shrs.pitt.edu/support.</a>

In addition, The University of Pittsburgh as a whole maintains 7 additional computer labs spread throughout the campus, including a 24 hour/day, 7 day/week facility located in David Lawrence Hall. For more information on the campus labs, please see <a href="http://technology.pitt.edu/">http://technology.pitt.edu/</a>

#### **Software**

An extensive range of software and hardware support and services is available for students at the University of Pittsburgh. Also, there are numerous software packages that are free or available for a small fee (usually \$5-\$10). The software programs range from Microsoft Windows, MAC OS, statistical software packages, antivirus programs, etc. For a complete list of computing and software services and programs available, and the instructions on how to obtain them, please visit <a href="http://technology.pitt.edu">http://technology.pitt.edu</a>.

#### **Courseweb**

Courseweb or Blackboard refers to a system used by the University and participating faculty members. This online information sharing system is designed to allow professors to share specific course information, guidelines, lectures and supplemental materials. It is also a place where students can post discussion topics to share with classmates, turn in assignments electronically, or view grades. It is necessary that the professor provides students with access to Courseweb, so he/she will let students know at the beginning of the course whether or not they plan to use Courseweb. For more information on Courseweb, please visit <a href="https://www.etskb-stu.cidde.pitt.edu">https://www.etskb-stu.cidde.pitt.edu</a>.

#### Resources

#### **Writing center**

The Writing Center is a place for students, faculty, and staff of the University of Pittsburgh to go to work on their writing. Its services are free, and can be very beneficial to new or returning students who may not be accustomed to the demands of graduate level writing. The Center is staffed by experienced consultants who have been trained to help others with their writing. More information about the Writing Center can be found at: <a href="http://www.writingcenter.pitt.edu">http://www.writingcenter.pitt.edu</a>

#### **Learning Resource Center**

The Learning Resource Center (LRC) is located on the 4<sup>th</sup> floor of Forbes tower, and has been developed for the students and faculty of the School of Health and Rehabilitation Sciences. The LRC offers the following:

- computing, printing, and photocopying resources
- a designated quiet study area
- meeting/workspace for students and student organizations
- treatment tables for student practice
- anatomy models
- tape viewing and duplicating stations

two multi-media stations to create digitize text, audio and video

#### **Disability Resource Center**

Disability Resources and Services (DRS) is a service offered to all University students who qualify. The goal of this department is to work with the student, to create equal access toward achievement of academic goals. The DRS offers such services as:

- Individualized Disability Support Service
- Interpreters/Real-time Captioning
- Learning Disability Screening
- Notification of Accommodations
- Test Proctoring Service
- Alternative Format Documents
- Assistive Technology
- Disability Shuttle
- Requesting Housing Accommodations

To find more about DRS, and the qualification criteria, please visit:

http://www.drs.pitt.edu/services.html

#### **Office of International Services**

The Office of International Services may be beneficial to any student from outside of the United States. To find out more about these services, please visit <a href="http://www.ois.pitt.edu/">http://www.ois.pitt.edu/</a>.

#### **Graduate Student Handbook**

The 'Graduate Student Handbook' for SHRS students is a reference that can be helpful throughout your entire progression through the program. It covers the School's policies and procedures, which must be followed while you are a student at SHRS. We ask that you read this handbook carefully.

#### **Funding Opportunities**

#### **Pre-doctoral Fellowships**

Pre-doctoral fellowships are research employment opportunities offered through the MSRT program. These positions offer monthly stipends on an annual basis, but do not support tuition or benefits. Pre-doctoral fellowships are competitive and offered as available.

#### Virginia Kaufman Scholarship (\$2000)

It is designed to take into consideration student scholarly records, evidence of community, professional, disability, and academic services, and financial needs. This scholarship could be given to one MSRT student or split among several MSRT students.

#### Shimada Award (\$1000)

It is designed to be merit based and usually given to one MSRT student who has demonstrated outstanding potentials to thrive in the field of rehabilitation engineering and assistive technology.

#### **Other Opportunities**

Bruce Baker Travel Fund for MSRT students

- GPSG Travel Grant
- Financial Information under Graduate Studies webpage

If a student has any program concerns, questions, or complaints, please request an appointment with your academic advisor or Program Director to address your issues. Due to the faculty's busy schedule and privacy, we require all students to request an appointment.

#### **Appendix A: MSRT Course Descriptions**

\* designates core course

\*HRS 2704 Fundamentals of Rehabilitation Engineering and Assistive Technology 3 cr. This course will cover the fundamentals and therapeutic practices as they relate to multiple areas of assistive technology. The technology areas addressed are seating and prosthetics, wheelchair related technology, recreation technology, environmental controls, augmentative communication, computer access, auditory technology, and driving/transportation safety. In addition, common terminology, disability, ethics, and models of service-delivery and legislation related to assistive technology are discussed. There is a lab portion of this course where students will have hands-on

\*HRS 2705 Rehabilitation Engineering and Assistive Technology Practices 3 cr. Students will be introduced to the clinical skills needed to apply assistive technology to persons with disabilities. The course will include a weekend seminar, supervised clinical practices, and a case-based learning project. Students are required to complete HRS 2704 before taking this course.

#### \*HRS 2706 Introduction to Rehabilitation Engineering Design

experience interacting with different types of assistive technology.

4 cr.

This course is the first course in a two-course sequence on Rehabilitation Engineering Design (HRS 2706 in Fall, and HRS 2718 in Spring). This course covers the fundamentals of product design and development with a particular emphasis on assistive and rehabilitative technologies. The goal of the course is for students to learn both the process and tools necessary to develop high-quality designs. The tools we focus on including sketching, computer aided drafting, fabrication and programming. The design process is discussed throughout the class, and relies on a textbook and a series of videos that can be accessed through the internet.

#### \*HRS 2708 Individual and Social Experience of Disability

3 cr.

Students will analyze the role of disability and people with disabilities within the structure and practice of society. Students will interact with a wide variety of disciplinary perspectives on individual, social, and cultural experience of disability, gaining familiarity with key debates in these fields. Students will also develop disability consciousness, vocabulary for discussing and writing about disability, and confidence in engaging with others in conversations on issues of disability in society. Students will develop skills in research, practice, policy, and advocacy.

#### \*HRS 2715 Medical and Psychosocial Aspects of Disability

3 cr.

The purpose of this course is to provide a basic understanding of the medical and psychosocial aspects of disabilities seen in individuals seeking rehabilitation and/or mental health services. Learning basic medical terminology will be necessary to understand course concepts. The course will provide an overview of body systems and disability conditions, along with their underlying physiology, functional and environmental impacts, and rehabilitation and mental health considerations. Readings, guest speakers, and case studies will be utilized.

#### \*HRS 2718 Client-Centered Design

3 cr.

This course is the second course in a two-course sequence on Rehabilitation Engineering Design. In this course, students seek input from clinicians and end users related to problems that could be in part be solved by assistive technology. Student teams will interview clients/end users, solicit their feedback through the design process, prototype the design, and ultimately, present this design to the end user(s), with the goal of providing them with a usable product.

#### \*HRS 2724 AT Funding, Policy, and Management

3 cr.

This course focuses on the components necessary for people with disabilities to access Assistive Technology and Assistive Technology Services. Students will be able to apply experience from previous coursework and experience with AT devices from a context of policy (legislative and non-legislative), funding, and organizational management that surrounds services. Content will focus on funding sources, legislative policy, clinical assessment, documentation procedures, use of evidence, and advocacy efforts. Examples of systems change activities and current topics will also be reviewed and discussed. Advocacy and procedures for due process and policy change will also be reviewed for situations when funding sources and policies are limited. Students will prepare and present a policy/funding case study. The management portion will focus on the essential components of a service delivery program or business model that includes strategic planning, human resource/organizational behavior, policies and procedures, accreditation, budgets, quality improvement, business planning and resource management. Students will work as a group(s) to prepare a business plan that includes these essentials.

#### \*HRS 2901 Introduction to Research Methodology

3 cr.

This course focuses on developing general research skills in health and rehabilitation sciences. The course will introduce the student to key concepts of evidence-based practice and review the basics of different research designs including experimental design (e.g., RCT, quasi-experimental design, small-N design), observational design, and developing outcome measures. Students will have the opportunity to conduct a mini systematic review on topics of their interests and implement the practice of asking research questions, conducting literature search, selecting the literature, appraising the literature, and interpreting the results. The lectures will be accentuated with handson class exercises where the student learns to critically appraise journal articles and interpret results.

#### \*HRS 2905 Ethical Issues in Health Care

3 cr.

Learn a process of analytic thought and prudent behavior that will lead to resolution of ethical dilemmas that rehabilitation practitioners, researchers and educators experience in their careers. Students have the opportunity to (1) explore problems they are likely to face in their research and/or practice careers, identify related ethical principles and theories; and consider arguments for various courses of action and decisions; demonstrate techniques and resources for problem solving; (2) learn the basis in moral norms for policies, standards and requirements in law/regulations, professional codes, and university IRB compliance structure and procedures; (3) develop a sensitivity to multiple perspectives when problem solving, including those involving culture/ethnicity, religion, sexual orientation, individuals with disabilities and in business and health professional domains; and (4) recognize the controversial nature of many ethical issues and the need to consider opposing points of view.

#### \*HRS 2921 Rehab Science & Technology Internship

6 cr.

The clinical internship is a supervised practical experience, usually in a clinical facility or agency, permitting the student to observe and participate in existing specialized programs and to develop, apply, and evaluate new clinical procedures.

#### HRS 2915 Telemedicine, Telerehabilitation, and E-Health

3 cr.

This course will study how technology, people, economics and policies of telemedicine, telerehabilitation & e-Health interact and the impacts of these approaches have on healthcare systems. Consider this situation and following questions: The United States healthcare system is on the verge of potential significant reform. President Barack Obama has called for affordable, accessible healthcare; preventative care and wellness; and new investments in health IT. Given this scenario, what changes will be required in healthcare IT infrastructure? What will be the regulatory and financial impact on Telemedicine? Can we say anything about having reimbursement for

telemedicine services? Is there a systematic difference between the ways telemedicine practiced and reimbursed in various states? Is there a study to effect the cost- benefits of telemedicine? Can we really do surgery remotely using a robot? What are the patient, provider and society's perspectives about remote medical technology.

#### HRS 3702 Soft Tissue Biomechanics

2 cr.

The courses will cover the intrinsic and extrinsic factors leading to pressure ulcer development, the state of the science related to the prevention of pressure ulcers, the techniques used to evaluate and study tissue integrity related pressure ulcer development, and the evidence for the three primary theories of pressure ulcer etiology.

#### **HRS 3705** Wheelchair Biomechanics

1 cr.

This course covers manual wheelchair setup and design, propulsion biomechanics and physiology, upper limb muscular demands and biomechanical models for determining upper limb joint forces and moments. Students will conduct three projects involving biomechanics data analysis. Clinical correlates to the biomechanical studies will also be presented. Students should have a general knowledge of physics (e.g. introductory undergraduate course).

#### **HRS 3710** Clinical Applications in Seating

4 cr.

The purpose of this course is for students to develop knowledge and hands-on skill in the process of identifying and providing wheeled mobility and seating interventions to people of all ages and disability type. The course builds on previous coursework in the RST program. The class will be carried our specifically through a case based and evidence based practice learning approach. Students are required to attend clinics and work with clinical faculty.

# **Appendix B: MSRT Program Manual Agreement**

## MSRT Program Manual Agreement form

By signing this form. I certify that	at I have read, understan	d and received the University of
Pittsburgh's MSRT program man	nual and acknowledge th	e terminology, rules, policies,
conduct including plagfarishi, ta	irumess, absence, acticua	e and program merareny.
(Printed Student Name)		
(Signature of Student)	Date	