

# UNIVERSITY of TORONTO

## Proposal for a PhD Program in Rehabilitation Science

### *Centre for Function and Well-Being*

*500, University Avenue, 10<sup>th</sup> Floor  
Toronto, ON, M5T 1W5*

Submitted to the  
Ontario Council on Graduate Studies  
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## VOLUME I: The Program

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## THE PROGRAM

<b>1</b>	<b>INTRODUCTION</b>	
1.1	Brief listing of programs .....	3
1.2	Objectives of the programs .....	4
1.3	Method used for the self-study .....	4
1.4	Fields in the programs .....	5
1.5	Review concerns expressed in previous appraisal and actions taken .....	5
1.6	Special matters and innovative features .....	5
<b>2</b>	<b>THE FACULTY</b>	
2.1	List of faculty by field.....	7
2.2	External operating research funding.....	10
2.3	Graduate supervision .....	11
2.4	Current teaching assignments.....	14
2.5	Commitment of faculty members from other graduate programs.....	18
<b>3</b>	<b>PHYSICAL AND FINANCIAL RESOURCES</b>	
3.1	Library resources .....	18
3.2	Laboratory facilities .....	18
3.3	Computer facilities .....	22
3.4	Space .....	23
3.5	Financial support of graduate students .....	27
<b>4</b>	<b>PROGRAM REGULATIONS AND COURSES</b>	
4.1	The intellectual development and educational experience of the student .	28
4.2	Program regulations .....	29
4.3	Part-time studies .....	32
4.4	Total graduate courses listed and level .....	33
4.5	Collateral and supporting departments .....	33
<b>5</b>	<b>OUTCOMES</b>	
5.1	Enrolment and graduations.....	33
5.2	Employment.....	36
5.3	Publications .....	37
5.4	Projected graduate enrolments .....	38
<b>6</b>	<b>APPENDICES</b>	
<b>A</b>	<b>MSc Brochure</b>	<b>G</b> <b>Library Report</b>
<b>B</b>	<b>Collaborative Programs</b>	<b>H</b> <b>PhD Admission &amp; Program Requirements</b>
<b>C</b>	<b>Faculty of Medicine Funding Policy</b>	<b>I</b> <b>Software List</b>
<b>D</b>	<b>GDRS Appointments Policy</b>	<b>J</b> <b>Course Descriptions</b>
<b>E</b>	<b>Position Postings</b>	<b>K</b> <b>Annual Report (Student)</b>
<b>F</b>	<b>Supervisor Responsibilities</b>	<b>L</b> <b>REH 2001Y Schedule</b>

# 1 INTRODUCTION

## 1.1 Brief listing of current programs

The Graduate Department of Rehabilitation Science (GDRS) presently offers a doctoral stream program leading to the degree **Master of Science (MSc) in Rehabilitation Science** (Appendix A - Brochure).

- Rehabilitation Science is the systematic study of the physical and psychosocial dimensions of human function throughout the lifespan of individuals with impairments, disabilities and/or handicaps. The MSc in Rehabilitation Science requires both course work and a thesis, designed to prepare students for a career that contributes to the expanding body of research in the field of Rehabilitation Science. The program also prepares graduates for doctoral studies in preparation for careers as scientists and scholars in rehabilitation.
- The MSc (Rehabilitation Science) program has been in place since 1995, with 34 students graduated to-date. Students participate in a minimum of 12 months full-time study. In exceptional cases, students may enroll in a part-time program, with a two-year deadline for completion of all required course work and five-year deadline for program completion.
- Eligible MSc students may participate in one of the following [Collaborative Programs](#)<sup>1</sup>: Human Development, Life Course and Aging, Biomedical Engineering, Cardiovascular Sciences or Neurosciences, (see Appendix B for details i.e. Handbook p. 32-34).
- Some students, currently, are eligible to transfer into the Ph.D. program in the [Institute of Medical Sciences](#)<sup>2</sup>.

### 1.1.1 Brief Overview of Proposed New program

The Graduate Department of Rehabilitation Science (GDRS) proposes to also offer a new graduate program leading to the degree **PhD in Rehabilitation Science**.

- The program will require innovative and independent research leading to a traditional thesis and defense process, mandatory and selective course work and a comprehensive examination
- The program is expected to commence in January 2004 and will enroll up to 4 students per year/session, to a maximum of 16 new enrollments per annum in 2010.
- As with the MSc program, approval will be sought for PhD students in the Rehabilitation Program to participate in one of the following Collaborative Programs: [Human Development, Life Course and Aging](#), [Biomedical Engineering](#), [Cardiovascular Sciences](#) or [Neurosciences](#).
- The new PhD program will provide the GDRS the opportunity for research growth and continuity of research programs within the unit.

<sup>1</sup> <http://www.library.utoronto.ca/ims/programs/collaborative.htm>

<sup>2</sup> <http://www.library.utoronto.ca/ims/admissions/index.htm> pg 2 of 6

## 1.2 Objectives of the PhD program

The objective of the Ph.D. program will be to prepare candidates for a career in scientific research i.e. graduates will feed the demand for rehabilitation scientists and academic faculty in Canada and the Global Market. Graduates will be expected to acquire autonomy in conducting research and developing an independent research program. The program is designed to provide a broad knowledge of rehabilitation science research as well as advanced research skills and methodologies including acquisition of funding, formulation of research questions, discovery of new knowledge, data collection, analysis and interpretation, scholarly presentation and publication and translation of knowledge for consumption by appropriate stakeholders.

These objectives will be achieved through a combination of required course work, a comprehensive oral and written examination, and independent research that will be evaluated by a rigorous thesis process. Informal education including a seminar series, research symposiums and exchanges with other PhD students throughout the university will be a feature of the program. Opportunities for teaching rehabilitation professional students at a graduate level will be available through Teaching Assistantships in the master's professional programs in Occupational Therapy and Physical Therapy.

The impact of the PhD Program on GDRS will be minimal. Careful balance between the number of master's and PhD students will be maintained. The impact will be positive, such that appropriate students will be able to enrol in PhD programs in their relevant field. Research programs of faculty will benefit from PhD level trainees to enhance the development of the science. Currently GDRS has 4 master's students desiring to complete PhD training. This new program is natural progression of development.

## 1.3 Method used for the self-study / Program Development Process

The Graduate Affairs and Appointments Committee (GAAP) of GDRS is responsible for program planning and development and consists of university based and research institute faculty, as well as graduate student membership. The GAAP initiated a process to develop a PhD Program proposal via the PhD Steering and Planning Task Force convened with faculty members (n= 8) of the Graduate Department of Rehabilitation Science (GDRS). The task force outlined admission criteria, course requirements, thesis structure, and a comprehensive examination. As the Department was changing physical location on campus, to new quarters in the Centre for Function and Well-Being that would provide new physical resources, further work on the proposal was deferred until the Fall of 2002. The current proposal was developed under the leadership of the GAAP, in consultation with the GDRS faculty members in open forum meetings and with senior staff<sup>3</sup> of the School of Graduate Studies, University of Toronto.

<sup>3</sup> Professor Umberto De Boni, Associate Dean, Division IV, Life Sciences and Ms. Jane Alderdice, Policy, Program and Liaison Coordinator, School of Graduate Studies

#### 1.4 Fields in the programs

Fields of study for the master's program were reviewed by circulating descriptions of the two existing fields and current research themes to the departmental faculty to determine whether substantive changes had occurred since inception of the master's program in 1995. Review of the responses indicated that the existing fields, Psychosocial Rehabilitation and Physical Rehabilitation continue to reflect the breadth of science in the research programs of the faculty and theses of students to-date. By the inherent nature of rehabilitation science there was further recognition that, often, with well-constructed research questions, research approaches frequently cross and combine the two fields. Therefore, for the advanced study of the PhD program, one generic field, Rehabilitation Science has been adopted.

Rehabilitation Science encompasses basic and applied aspects of the health sciences, social sciences, and engineering sciences related to promoting the development of function and well-being at the level of the cell, system, person, community, family and/or society and improving interactions and participation with the surrounding environment. Rehabilitation Science is the systemic study of human adaptation and function of individuals/groups with disabilities, with a view to minimizing impairment, encouraging activity and fostering participation in life roles.

#### 1.5 Review concerns expressed in previous appraisal and actions taken

Not applicable

#### 1.6 Special matters and innovative features

##### ***Collaboration:***

- As stated above in section 1.1.2, the PhD program will provide students with opportunities to participate in several Collaborative Programs (Neuroscience, Human Development, Life Course and Aging, Biomaterials & Biomedical Engineering or Cardiovascular Sciences (Appendix B).
- Faculty provides strength and breadth of expertise in the rehabilitation sciences as well as both quantitative and qualitative research methods.
- The Centre for Function and Well-Being in the Rehabilitation Sciences Building was specifically designed to accommodate graduate programs in the rehabilitation sciences, with research and student space developed as an integral part of the environment.
- Members of the GDRS faculty are active researchers in many networks e.g.

- 
- |   |  |
|---|--|
| ➤ National Centre of Excellence (NCE) Arthritis | Dr. E. Badley<br>Dr. C. Cott   |
| ➤ NCE Stroke                                    | Dr. W. McIlroy<br>Dr. M. Verrier                                     |
| ➤ Ontario Rehabilitation Technology Consortium  | Dr. G. Fernie<br>Dr. M. Milner<br>Dr. M. Popovic                     |
| ➤ Medicare to Home and Community                | Dr. C. Cott<br>Dr. A. Colantonio<br>Dr. S. Rappolt<br>Dr. M. Verrier |

These networks provide opportunities for student exposure to researchers from across the country, and they assist with building the rehabilitation science research enterprise.

- As a result of special relationships with many of the research programs and Research Institutes comprising the Academic Health Science Complex surrounding the University of Toronto (particularly the Toronto Rehabilitation Institute and its research partnership programs), students will have access to world-class faculty expertise and facilities. GDRS also has cross-appointed faculty from:
  - The Institute for Clinical and Evaluative Studies, the Centre for Studies in Aging, and the Centre for Studies in Physical Function of the Orthopaedic and Arthritic Institute, located in the Sunnybrook and Women's College Health Sciences Centre complex
  - The Institute for Work and Health<sup>4</sup> at the WSIB<sup>5</sup>
  - The Rotman Research Institute and the Kunin-Lunenfeld Applied Research Unit, at the Baycrest Centre for Geriatric Care
  - The Arthritis Community Research and Evaluation Unit at the University Health Network and
  - the Bloorview MacMillan Research Institute.

### **Student Funding:**

- The School of Graduate Studies has implemented a [funding commitment policy](#)<sup>6</sup> for all doctoral-stream students, which ensures that students receive full funding (tuition plus at least \$12,000 per year) for their studies (Appendix C).
- GDRS, currently, has at least nine full faculty members with special personnel funding:

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<sup>4</sup> <http://www.iwh.on.ca/>

<sup>5</sup> Workplace Safety Insurance Board (<http://www.wsib.on.ca/>)

<sup>6</sup> <http://www.sgs.utoronto.ca/current/financial/index.asp>

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✓ Canada Research Chair:	Dr. William McIlroy
✓ CIHR <sup>7</sup> Scientist:	Dr. Aileen Davis Dr. Dina Brooks
✓ CIHR New Investigator Award	Dr. Dorcas Beaton
✓ CIHR Director (IPPH <sup>8</sup> )	Dr. John Frank
✓ OMHLTC <sup>9</sup> Scientist:	Dr. Susan Jaglal Dr. Karen Yoshida Dr. Cheryl Cott
✓ President & Scientific Director Institute for Work & Health	Dr. Cameron Mustard

**Program Funding:**

The GDRS has a Graduate Chair, a Graduate Coordinator and a Graduate Administrative Assistant. The new PhD Program has approved funding through enrolment expansion dollars. The Departments of Occupational Therapy and Physical Therapy resource the operating budget for the program.

**Program:**

The program will provide several learning innovations:

- Proposal writing for external granting agencies (REHAB 1120H)
- Seminar series with exposure to national and international experts
- Practicum Curriculum specifically designed to meet students' learning needs e.g. workshops on NUD\*IST<sup>®</sup> or SAS<sup>®</sup> software, and/or research instrumentation.
- Students will have an option for publication of papers versus traditional thesis format.

**Facilities:**

- The Graduate Department of Rehabilitation Science moved to a new location, the Centre for Function and Well-Being (500 University Avenue), with specially designed, newly renovated space.
- Dedicated space is provided for students to engage in study, computer and research laboratory activities, as well as substantial lounge/reflection space.
- This new facility provides students with a unique intellectual environment for interdisciplinary informal education.
- The professional master's programs, which are fully accredited, are housed in the same facility, as well as the Graduate Department of Speech-Language Pathology, which has a 25-year history of running PhD programs.

## 2 THE FACULTY

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<sup>5</sup> Canadian Institutes of Health Research

<sup>8</sup> Institute of Population and Public Health

<sup>9</sup> Ontario Ministry of Health and Long Term Care

- 2.1** Table 2.1 lists the twenty-five (25) core faculty members of the Graduate Department of Rehabilitation Science (n= 42) that will be involved in the PhD program and indicates gender, home unit and expected retirements in the next seven years. They are listed by OCGS Category (see legend, page 9) and each has full membership in the School of Graduate Studies, the eligibility requirement for PhD student supervision (Appendix D). A biosketch for each member can be viewed on the [Graduate Department of Rehabilitation Science](#) website<sup>10</sup>.

**TABLE 2.1**

N.B.: The intent of this Table is to establish the strength and the degree of involvement of the faculty complement participating in each field of the graduate program and whose CVs are provided in Volume II of the Brief.

Faculty Members by Field (Rehabilitation Science)				
Faculty Name & Rank	M/F	Retirement Date	Home Unit <sup>1</sup>	Supervisory Privileges
<b>Category 3</b>				
<b>Badley, Elizabeth Professor</b>	F	N/A	The Arthritis Community Research & Evaluation Unit <sup>11</sup>	Full
<b>Friedland, Judith Professor</b>	F	2004	Occupational Therapy	Full
<b>Polatajko, Helene Professor</b>	F	N/A	Occupational Therapy	Full
<b>Reid, Denise Professor</b>	F	N/A	Occupational Therapy	Full
<b>Colantonio, Angela Associate Professor</b>	F	N/A	Occupational Therapy	Full
<b>Cott, Cheryl Associate Professor</b>	F	N/A	Physical Therapy	Full
<b>McIlroy, William Associate Professor</b>	M	N/A	Physical Therapy	Full
<b>Rappolt, Susan Associate Professor</b>	F	N/A	Occupational Therapy	Full
<b>Renwick, Rebecca Associate Professor</b>	F	N/A	Occupational Therapy	Full
<b>Thomas, Scott Associate Professor</b>	M	N/A	Physical Education and Health	Full
<b>Verrier, Molly Associate Professor</b>	F	N/A	Physical Therapy	Full
<b>Yoshida, Karen Associate Professor</b>	F	N/A	Physical Therapy	Full

<sup>10</sup> <http://www.utoronto.ca/gdrs/faculty/facindex.htm>

<sup>11</sup> Funded via Health System-Linked Research Unit Grant by the Ontario Ministry of Health & Long Term Care



Faculty Members by Field (Rehabilitation Science)				
Faculty Name & Rank	M/F	Retirement Date	Home Unit <sup>1</sup>	Supervisory Privileges
<b>Brooks, Dina Assistant Professor</b>	F	N/A	Physical Therapy	Full
<b>Jaglal, Susan Assistant Professor</b>	F	N/A	Physical Therapy	Full
<b>Popovic, Milos Assistant Professor</b>	M	N/A	Institute of Biomaterials & Biomedical Engineering	Full
<b>Category 4</b>				
<b>Fernie, Geoff Professor</b>	M	N/A	Sunnybrook & Women's College Health Sciences Centre	Full
<b>Frank, John Professor</b>	M	N/A	CIHR <sup>7</sup> above – Institute of Population & Public Health	Full
<b>Mustard, Cam Professor</b>	M	N/A	Institute for Work & Health	Full
<b>Streiner, David Professor</b>	M	2006	Baycrest Centre for Geriatric Care	Full
<b>Stuss, Donald Professor</b>	M	N/A	Rotman Research Institute	Full
<b>Boschen, Kathryn Associate Professor</b>	F	N/A	Toronto Rehabilitation Institute	Full
<b>Davis, Aileen Associate Professor</b>	F	N/A	Toronto Rehabilitation Institute	Full
<b>Young, Nancy Assistant Professor</b>	F	N/A	Hospital for Sick Children Research Institute	Full
<b>Category 5</b>				
<b>Milner, Morris <sup>2</sup> Professor</b>	M	2002	Bloorview MacMillan Children's Centre	Full
<b>Williams, Ivan (Jack) <sup>3</sup> Professor</b>	M	2003	Toronto Rehabilitation Institute	Full

<sup>1</sup> This is the budget unit paying the salary: department, school, research centre or institute, or other.

<sup>2</sup> M. Milner, formerly Vice-President Research at Bloorview MacMillan Children's Centre, is currently Consultant during the search period.

<sup>3</sup> I. Williams is currently Vice-President Research at Toronto Rehabilitation Institute until his retirement in July 2003. A search is underway for his replacement.

**Category 3:** tenured or tenure-track core faculty members who are involved in teaching and/or supervision in other graduate program(s) in addition to being a core member of the graduate program under review.

**Category 4:** non-tenured or tenure-track core faculty members who are involved in teaching and/or supervision in other graduate program(s) in addition to being a core member of the graduate program under review.

**Category 5:** other core faculty: this category may include emeritus professors with supervisory privileges and persons appointed from government laboratories or industry as adjunct professors.

The GDRS is the major graduate department for doctoral stream studies for Occupational Therapy and Physical Therapy. Therefore, having a PhD program housed within the

Rehabilitation Sciences will allow these faculty to supervise PhD students in their own disciplines and assist with development of this exciting, growing field. There is a commitment from both the Department of Occupational Therapy and Physical Therapy to provide faculty to teach and supervise in the PhD program. The GDRS core faculty who will participate in the PhD program are a mix of seasoned leaders in the field and up-and-coming young researchers. There are clusters of researchers and students studying restorative motor control, disabilities studies, rehabilitative engineering, occupational competence, human physical function, and neurorehabilitation. The strength of the faculty lies in the multidisciplinary nature of their training as it relates to rehabilitation science.

In addition, there are 12 Associate Members of the department (see details in Appendix A). Members of this group provide teaching support in GDRS courses and specialty expertise as necessary, but will not be eligible for supervisorship roles in the PhD program (see Appendix D for details of Appointments Policy).

Recruitment activities at several levels will further strengthen the ability of the GDRS to successfully provide a PhD program, since all of the positions have appointments in GDRS:

- Currently the Department of Physical Therapy is actively engaged in a search for two vacant tenure stream positions with specialties in Musculoskeletal Physical Therapy and Exercise Physiology. Both will be filled at the PhD level, and both recruits will be eligible for full membership in the School of Graduate Studies, to enable appointment to the GDRS. It is expected the positions will be filled by July 2003 (see Appendix E for postings).
- The Departments of Occupational Therapy and Physical Therapy have 10 positions to recruit at the PhD level between 2003 and 2010, to maintain appropriate student ratios for both the master's professional and doctoral stream programs. The University of Toronto has demonstrated budgetary commitment to this process.
- The following positions are also undergoing recruitment/search activity due to vacancy or impending vacancy in the near future:
  - Joint Toronto Rehabilitation Institute / University of Toronto Research Chair
  - Toronto Rehabilitation Institute, Sanderson Chair (Acquired Brain Injury)
  - Bloorview MacMillan Children's Centre, Vice-President Research
  - Toronto Rehabilitation Institute, Vice-President Research (term ends July 2003)
  - University of Toronto, Department of Physical Therapy, Chair (term ends 2004)

These senior positions will provide the ability for new, experienced faculty to join the GDRS over 2003/2004. With appointments in GDRS, these faculty are requested to be integral to the academic activity of the department i.e. the current VP of Research, Toronto Rehabilitation Institute, is a member of the Admissions and Awards Committee.

## 2.2 External operating research funding

Table 2.2 presents the external research funding received by faculty of the proposed PhD program (n = 25), by source and by year for the past five years. Years 1997/98 and 1998/99 shows funding based on the total faculty complement (n = 31) at that time.

**TABLE 2.2**

Operating Research Funding by Source and Year					
Source					
Year	Granting Councils <sup>1</sup>	Other Peer Adjudicated <sup>12</sup>	Contracts	Others <sup>2</sup>	Totals
<b>2002/03</b>	7,068,227	5,143,987	474,177	1,290,236	<b>13,976,627</b>
<b>2001/02</b>	6,084,925	4,851,743	468,877	1,048,373	<b>12,453,918</b>
<b>2000/01</b>	4,292,846	3,041,102	611,846	1,095,163	<b>9,040,957</b>
<b>1999/00</b>	3,532,468	1,422,389	491,384	4,144,693	<b>9,590,934</b>
<b>1998/99</b>	3,038,187	1,307,359	77,500	1,428,259	<b>5,851,305</b>
<b>Subtotal</b>	<b>24,016,653</b>	<b>15,766,580</b>	<b>2,123,784</b>	<b>9,006,724</b>	<b>50,913,741</b>
<b>1997/98<sup>3</sup></b>	25,461,682	5,101,841	-	165,924	<b>30,729,447</b>
<b>1996/97</b>	11,191,723	7,183,842	3,500	144,890	<b>18,523,955</b>
<b>Totals</b>	<b>60,670,058</b>	<b>28,052,263</b>	<b>2,127,284</b>	<b>9,317,538</b>	<b>100,167,143</b>

*Does not include equipment grants, conference grants, or grants allocated by the university such as SSHRC minor grants.*

<sup>2</sup> *University allocated grants (such as SSHRC) and other minor grants.*

<sup>3</sup> *Data reported below the subtotal row (up to 97/98) was drawn from the last Periodic Appraisal submitted to the Ontario Council on Graduate Studies<sup>13</sup>. Data after this period is newly collated for this Brief and reflects only funds secured by the 25 Full Members of GDRS who will support the PhD program.*

There has been a steady increase in the amount of research funding since 1998. This increase can be attributed to growing faculty experience reflected in progressively successful individual funding applications and participation in networks and other large collaborative research teams, such as the 2001-2006 Medicare to Home and Community project (four GDRS faculty were members of the co- investigator group, n = 34).

## 2.3 Graduate supervision

Table 2.3 details the number of thesis supervisions by each faculty member of the proposed program, past and current. The numbers distinguish between those students enrolled in GDRS and the total number of supervised students (in parentheses), which includes those from other graduate programs e.g. Professor Badley is currently

<sup>12</sup> Examples of source & type of funding:

- The Arthritis Society and the Canadian Arthritis Network funded projects that were specific to the mission of their organizations ie “Patterns of use and access to health care in Ontario for arthritis and related conditions” and “Course of Arthritis: three pilot studies to develop tools to measure the trajectory of functional decline”
- The Canadian Occupational Therapy Foundation funded several projects to evaluate elements of “occupational performance” in different sample populations.

<sup>13</sup> Brief for the Periodic Appraisal of the M.Sc. in Rehabilitation Science, October 1999.

supervising one GDRS Master's student and 3 students in total.

**TABLE 2.3**

<b>Career and Current Numbers of Thesis<sup>1</sup> Supervisions by Faculty Member</b>						
	<b>Career</b>			<b>Current</b>		
<b>Member</b>	<b>Master's</b>	<b>PhD</b>	<b>PDF</b>	<b>Master's</b>	<b>PhD</b>	<b>PDF</b>
<b>Category 3</b>						
<b>Badley, Elizabeth Professor</b>	2(5)		0(2)	1(3)	0(2)	
<b>Friedland, Judith Professor</b>	1(2)	0(1)		2	0(1)	
<b>Polatajko, Helene Professor</b>	0(12)	0(1)		1(2)	0(1)	
<b>Reid, Denise Professor</b>	4(5)					
<b>Colantonio, Angela Associate Professor</b>	4(6)			1(2)	0(1)	
<b>Cott, Cheryl Associate Professor</b>	2			3		
<b>McIlroy, William Associate Professor</b>	4		0(1)	2	0(1)	0(1)
<b>Rappolt, Susan Associate Professor</b>	2			3		
<b>Renwick, Rebecca Associate Professor</b>	3			2	0(1)	
<b>Thomas, Scott Associate Professor</b>	3(10)			1(2)	0(4)	
<b>Verrier, Molly Associate Professor</b>	2(6)			5	0(1)	
<b>Yoshida, Karen Associate Professor</b>	1			1	1	
<b>Brooks, Dina Assistant Professor</b>	2			6		
<b>Jaglal, Susan Assistant Professor</b>	1			4		

Career and Current Numbers of Thesis <sup>1</sup> Supervisions by Faculty Member						
	Career			Current		
Member	Master's	PhD	PDF	Master's	PhD	PDF
<b>Popovic, Milos Assistant Professor</b>		0(2)	0(1)	0(4)	0(1)	0(1)
<b>Category 4</b>						
<b>Fernie, Geoff Professor</b>	0(8)	0(4)		0(2)		
<b>Frank, John Professor</b>	0(21)	0(6)	1	0(1)	0(1)	
<b>Mustard, Cam Professor</b>	0(5)	0(8)		0(2)	0(6)	
<b>Streiner, David Professor</b>	0(10)	0(5)		0(2)	0(1)	0(1)
<b>Stuss, Donald Professor</b>	0(4)	0(6)	4		0(3)	
<b>Boschen, Kathryn Associate Professor</b>	1			2		
<b>Davis, Aileen Associate Professor</b>				3(4)	0(1)	
<b>Young, Nancy Assistant Professor</b>	1			2(3)		
<b>Category 5</b>						
<b>Milner, Morris<sup>2</sup> Professor</b> <i>Retired 2002</i>	0(49)	0(13)	0(5)			
<b>Williams, Ivan<sup>2</sup> Professor</b>	1(32)	0(14)	0(4)			0(1)

<sup>1</sup> Supervisory committee activity is not included.

<sup>2</sup> Professor Emeritus status awarded at age 65, as per University of Toronto policy.

Supervision of graduate students is taken very seriously in GDRS. We have an appointments policy that fosters participation in program advisory committees, co-supervision and solo supervision to ensure that experienced faculty are mentoring junior faculty in this area. Details about the supervisory process and the responsibilities of the supervisor are clearly documented in the [GDRS Handbook](#), page 14 - 16 (Appendix F).

## 2.4 Current teaching assignments

Table 2.4 outlines the teaching assignments (graduate and undergraduate), showing the courses taught by each faculty member, and their credit value, for the past four years.

**TABLE 2.4a**

Teaching Assignments for 2002/03				
Faculty Member	Rank	Undergraduate/ Professional Graduate	Graduate <sup>1</sup>	Comments
<b>Category 3</b>				
Friedland, Judith	Professor	OCT1220Y – 1.5		
Polatajko, Helene	Professor		REH2000H – 0.5	Chair, Department of Occupational Therapy
Reid, Denise	Professor	OCT1252H – 0.5		Graduate Coordinator, Occupational Therapy
Colantonio, Angela	Associate Professor	OCT1271H – 0.5 OCT1272H – 0.5	REH1620H – 0.5	Graduate Coordinator, Rehabilitation Science
Cott, Cheryl	Associate Professor		REH1620H – 0.5	OMHLTC Scientist <sup>9</sup> above
McIlroy, William	Associate Professor		REH2000H – 0.5	Canada Research Chair
Rappolt, Susan	Associate Professor	OCT1131H – 0.5 OCT1133H – 0.5		
Thomas, Scott	Associate Professor	PH325Y – 1.0	REH2000H – 0.5 EXSC5503H – 0.5	PH & EXSC courses are not part of the GDRS Program
Verrier, Molly	Associate Professor		REH1100H – 0.5	Chair, Rehabilitation Science Chair, Physical Therapy
Yoshida, Karen	Associate Professor	PHT1012Y – 1.0	REH2000H – 0.5	OMHLTC Scientist <sup>9</sup> above
Brooks, Dina	Assistant Professor	PHT1002Y – 2.75	REH2000H – 0.5	CIHR Scientist <sup>7</sup> above
Jaglal, Susan	Assistant Professor	PHT1006Y – 0.75	REH1120H – 0.5	OMHLTC Scientist
<b>Category 4</b>				
Boschen, Kathryn	Associate Professor		REH2001Y – 1.0	

<sup>1</sup> 1.0 credit is equivalent to a full course @ 26 contact hours for two terms

0.5 credit is equivalent to a half course @ 26 contact hours for one term.

**TABLE 2.4b**

<b>Teaching Assignments for 2001/02</b>				
<b>Faculty Member</b>	<b>Rank</b>	<b>Undergraduate/ Professional Graduate<sup>1</sup></b>	<b>Graduate</b>	<b>Comments</b>
<b>Category 3</b>				
<b>Reid, Denise</b>	<b>Professor</b>	OCT267H – 0.5		
<b>Friedland, Judith</b>	<b>Associate Professor</b>		REH2000H – 0.5	
<b>Colantonio, Angela</b>	<b>Associate Professor</b>	OCT250Y1 – 1.5	REH2001Y – 1.0	Graduate Coordinator, Rehabilitation Science
<b>Rappolt, Susan</b>	<b>Associate Professor</b>	OCT1131H – 0.5 OCT1133H – 0.5 OCT201H1 – 0.5		
<b>Renwick, Rebecca</b>	<b>Associate Professor</b>	OCT201H1 – 0.5		
<b>Thomas, Scott</b>	<b>Associate Professor</b>	PHT1002Y – 2.75	REH200H – 0.5	
<b>Verrier, Molly</b>	<b>Associate Professor</b>		REH1100H – 0.5	Chair, GDRS Chair, Physical Therapy
<b>Brooks, Dina</b>	<b>Assistant Professor</b>	PHT1002Y – 2.75	REH2000H – 0.5	CIHR Scientist
<b>Jaglal, Susan</b>	<b>Assistant Professor</b>		REH1120H – 0.5	OMHLTC Scientist
<b>Category 4</b>				
<b>Boschen, Kathryn Ann</b>	<b>Assistant Professor</b>	OCT200Y – 1.0		

<sup>1</sup> 2001/02 was the last year the undergraduate program in Occupational Therapy (OT) was offered and the first year the professional master's program in OT was offered. Similarly, it was the first year the professional master's program in Physical Therapy was offered.

**TABLE 2.4c**

<b>Teaching Assignments for 2000/01</b>				
<b>Faculty Member</b>	<b>Rank</b>	<b>Undergraduate</b>	<b>Graduate</b>	<b>Comments</b>
<i>Category 3</i>				
<b>Reid, Denise</b>	<b>Professor</b>	OCT130Y – 1.5	REH1120H – 0.5	
<b>Colantonio, Angela</b>	<b>Associate Professor</b>	OCT250Y1 - 1.5		
<b>Cott, Cheryl</b>	<b>Associate Professor</b>		REH1120H – 0.5	OMHLTC Scientist
<b>Rappolt, Susan</b>	<b>Associate Professor</b>	OCT101H1 – 0.5 OCT201H1 – 0.5		
<b>Renwick, Rebecca</b>	<b>Associate Professor</b>	OCT122Y1 – 1.0		
<b>Thomas, Scott</b>	<b>Associate Professor</b>	PHT102Y1 – 2.75	REH2001Y – 0.5	
<b>Verrier, Molly</b>	<b>Associate Professor</b>		REH1100H – 0.5	Chair, Rehabilitation Science Chair, Physical Therapy
<b>Brooks, Dina</b>	<b>Assistant Professor</b>	PHT102Y1 – 2.75	REH2000H – 0.5	CIHR Scientist
<b>Jaglal, Susan</b>	<b>Assistant Professor</b>		REH1120H – 0.5	OMHLTC Scientist
<i>Category 4</i>				
<b>Boschen, Kathryn Ann</b>	<b>Assistant Professor</b>	OCT200Y – 1.0		
<b>Davis, Aileen</b>	<b>Assistant Professor</b>		REH1120H – 0.5	



**TABLE 2.4d**

<b>Teaching Assignments for 1999/00 <sup>1</sup></b>				
<b>Faculty Member</b>	<b>Rank</b>	<b>Undergraduate</b>	<b>Graduate</b>	<b>Comments</b>
<b>Category 3</b>				
<b>Badley, Elizabeth</b>	<b>Professor</b>		REH1100H – 0.5	Director, OMHLTC Health System-Linked Research Unit: ACREU <sup>14</sup>
<b>Cott, Cheryl</b>	<b>Associate Professor</b>	PHT204Y1 – 1.0	REH1120H – 0.5 REH2000H – 0.5	OMHLTC Scientist
<b>Rappolt, Susan</b>	<b>Associate Professor</b>		REH1100H – 0.5 REH2000H – 0.5	
<b>Reid, Denise</b>	<b>Associate Professor</b>		REH1540H – 0.5	
<b>Renwick, Rebecca</b>	<b>Associate Professor</b>		REH1100H – 0.5 REH2000H – 0.5	
<b>Thomas, Scott</b>	<b>Associate Professor</b>	PHT102Y1 – 2.75	REH2001Y – 0.5	
<b>Verrier, Molly</b>	<b>Associate Professor</b>		REH1100H – 0.5	Chair, Rehabilitation Science Chair, Department of Physical Therapy
<b>Yoshida, Karen</b>	<b>Associate Professor</b>		REH1640H – 0.5	
<b>Brooks, Dina</b>	<b>Assistant Professor</b>	PHT102Y1 – 2.75	REH2000H – 0.5	CIHR Scientist
<b>Jaglal, Susan</b>	<b>Assistant Professor</b>		REH1120H – 0.5	OMHLTC Scientist
<b>Category 4</b>				
<b>Boschen, Kathryn</b>	<b>Assistant Professor</b>		REH2001Y – 1.0	

<sup>1</sup> Specific course details are no longer available for GDRS faculty who taught undergraduate courses in the Department of Occupational Therapy in 99/00 academic year, however, undergraduate course load was deemed equivalent to that reported for subsequent years

The GDRS is the graduate department for the Departments of Occupational Therapy and Physical Therapy i.e. for training doctoral stream students. Teaching loads are balanced between teaching in the professional master's programs, GDRS and supervision of students. With 25 faculty, planned recruitment and carefully projected enrolments (target enrolment for the combined master's and PhD students is 33 by 2006: an addition of 9 from the present enrolment), we have the ability to provide excellent student to faculty ratios for supervision.

<sup>14</sup> The Arthritis Community Research and Evaluation Unit

## **2.5 Commitment of faculty members from other graduate programs and/or from other institutions**

Faculty from other graduate programs serve on student advisory committees, supervise students and co-teach components of GDRS courses. Both the GDRS Graduate Affairs and Appointments Committee and the Graduate Admissions and Awards Committee have members of faculty from the Centre for Function and Well-Being, outside research institutes and other departments to ensure that all members are actively involved in the graduate activity of the Department.

## **3 PHYSICAL AND FINANCIAL RESOURCES**

### **3.1 Library resources**

The University of Toronto Library system is one of the finest in Canada. GDRS faculty and students have direct electronic access from the Centre for Function and Well-Being and can download all electronic files on-site.

Appendix G provides a statement from the University's Chief Librarian, Carole Moore, regarding the Discipline Assessment for Rehabilitation Science. This report provides a description of the reference services and extensive collections (monographs, journals and electronic resources) available to faculty and students of the Department of Rehabilitation Science, both on-site at the University and off-site via the Health Science Information Consortium of Toronto. The report concludes with a statement of the university's financial commitment to library acquisitions and service support for rehabilitation science over the next five to seven years.

### **3.2 Laboratory facilities**

The Graduate Department of Rehabilitation Science has access to a comprehensive range of major equipment and facilities, located both on-site and off-site. The 12 faculty located in the Centre for Function and Well-Being have brand new (2002), purpose-built laboratories equipped for training PhD students. Laboratories have workstations, electronic access to libraries, configurations to maximize data collection and analysis, and space to accommodate interaction between research teams.

**On-Site Laboratory Facilities** are located in the Centre for Function and Well-Being at 500 University Avenue. Table 3.2 provides room-by-room details in sections that are grouped by purpose and/or location.

**Table 3.2a**  
**Human Physical Function Research Facility (6 Labs)**

Location	Laboratory & Purpose	Faculty	Equipment	
			Laboratory	Computer
Basement				
33	Biomechanics & Adaptive Technology Research Unit	TBA		
55	Cardiopulmonary & Functional Capacity Research Unit	D.Brooks	-Mass Spectrophotometer breath by breath analyzer with inkjet recorder -Cycle ergometer -Treadmill -Lido Dynnamometer System	- Network PC & printer
35	Exercise Physiology & Physical Adaptation Research Unit	TBA	- Start up funds for current search will equip lab	
37	Gait & Mobility Research Unit	W. McIlroy	-Acention Motion Tracking System (3D) -2-AMTI Force Plate & Software -Motion Analysis System (3D)	- Network PC & printer
53	Musculoskeletal Assessment & Intervention Research Unit	TBA	- Start up funds for current search will equip lab	
57	Movement & Neurorestorative Research Unit	M. Verrier	-3D Kinematics Selspot & Software -Cadwell Magnetic Stimulator -16-Channel electromyography -Neuroscan - 64 channel EMG - Labview Acquisition Software	- 4 Pentium PCs networked to other labs - laser printer
51	Patient Assessment Unit		- Examination Table - X-ray viewing box	

**Table 3.2b**  
**Occupational Science Research Facility (9 Labs)**

Location	Laboratory & Purpose	Faculty	Equipment	
			Laboratory	Computer
Level 2 & 9				
262	Virtual Reality & Neurorehabilitation Laboratory	D. Reid	- 16 channel A/D Board - SigmaPlot graphics software - Virtual reality system	Networked Pentium PC, software & printer
962	Dr. Colantonio's Research Lab	A. Colantonio		- 6 linked PCs & printer - Statistical software
935	History Research in Occupational Therapy Lab	J. Friedland		- Network PC & printer
961	Knowledge Translation & Practice Context Lab	S. Rappolt		- Network PC & printer
952	Occupational Competence Lab	H. Polatajko		- Network PC & printer
914	Quality of Life Research Unit	R. Renwick		- 2 Network PCs & printer - Modem UTCS
963	Dr. Renwick's Research Lab	R. Renwick		- Network PC & printer
968	Research Lab	TBA		- Network PC & printer
970	Research Lab	TBA		- Network PC & printer

**Table 3.2c**  
**Physical Therapy Science Research Facility (4 Labs)**

Physical Therapy Sciences Research Facility (Phase 1)				
Location	Laboratory & Purpose	Faculty	Equipment	
			Laboratory	Computer
Level 8				
805	Aging & Health Research Unit	C. Cott	- Meeting table & chairs - shelving	- Networked PC & printer in workstation
801	Disability Studies Research Unit	K. Yoshida	- Meeting table & chairs - shelving	- 2 Pentium PCs & printer - Ethnographic software
851	Rehabilitation Evaluative Sciences Research Unit	S. Jaglal	- Meeting table & chairs - shelving	- Networked PC & printer in workstation
803	Physical Therapy Evaluation & Education Facility	TBA	- Meeting table & chairs - shelving	- 2 Networked PCs - 2 printers (color & BW)

### Off-Site Laboratory Facilities:

These laboratories are situated in the University of Toronto Teaching Hospital's Research Institutes.

**Table 3.2d**

Location	Laboratory & Purpose	Faculty	Equipment	
			Laboratory	Computer
Bloorview McMillan Children's Centre	Sensory Motor Assessment Biofeedback and seating interventions	TBA	- Temp monitoring equip. chart & tape recorders, - viewdac data acquisition software - SigmaPlot graphics software	- MacIntosh & IBM computers with variety of interfaces
	Gait Laboratory- Movement (gait & upper limb reaching tasks)	TBA	- VICON motion tracking sys. - EMG & force platform	- PDP 11/34 & Micovax computer
Sunnybrook & Women's College Health Science Centre (SWCHSC)	Centre for Studies in Aging (CSIA)  - a complex of labs & workshops designed to study balance, stability & motion and to develop & test rehabilitation technology	G. Fernie B. McIlroy	- IRIS graphics work station - various equipment, machines & tools - EMG: motion measurement - 2 Moving platforms - 16-channel CAD/CAM System - computer controlled moving platforms - Video-based motion analysis system	- 3 networked PCs  - Vax computer system
	Cognitive Neurology	B McIlroy	- Electrical Stimulators - Portable data acquisition system - Access to MRI suite (for MRI studies)	- 2 PCs & printer
Orthopaedic & Arthritic Site	Centre for Studies in Physical Function (CSPF)- examines adaptation to exercise in impaired populations	TBA	- Mass spectrophotometer - Treadmill - Vision 3000 System	- 3 PCs - printer linked to UofT
West Park Hospital	Respiratory Rehabilitation Lab	D. Brooks	- Interviewing room - Exercise testing room - Labview data acquisition & analysis - SigmaPlot & SigmaStat graphics program	- Pentium PC - Laser printer - software

Location	Laboratory & Purpose	Faculty	Equipment	
			Laboratory	Computer
Hospital for Sick Children	Paediatrics Outcomes Research Team	N. Young	Access to scientists in the HSC Research Institute for consultation	
Institute for Clinical & Evaluative Studies	Health Research Data Centre	J. Williams S.Jaglal	- SPARC workstation - SUN workstation - Library/Media Resource Centre	- networked PC system - Pentium PC & printer
University Health Network	Arthritis & Community Research & Evaluation Unit	E. Badley C.Cott	- Data analysis facility & survey unit	- Network PC system & printers - statistical software
Baycrest Centre for Geriatric Care	Disabilities Research	D. Stuss D. Streiner	- Meeting table & chairs - shelving - data analysis facility	- Network PC system & printers - statistical software
Toronto Rehabilitation Institute	Restorative Motor Control Laboratory	W. McIlroy M. Verrier	- GAITRITE System - EEG/EMG Systems	- Network PC system & printers - statistical software
	Rehabilitation Research Data Centre	TBA A. Davis	- data analysis workstations	- Network PC system & printers - statistical software
Department of Physical Education and Health  UofT campus	Laboratory	S. Thomas	- treadmill - cycle ergometer - gas analyser - blood analysis - Biodex - ECG & Hrt Rate - Instability analyzer - bioelective impedance	- 5 PCs & printer

### 3.3 Computer facilities

All faculty and graduate students are provided with an account on the university mainframe computer. This account gives them access to electronic mail facilities, internet and intranet, as well as statistical software programs such as SPSS and SAS, and scientific graphics such as Amos 4 Graphics. All microcomputers are networked with the university mainframe, and loaded with standard office software.

Dedicated on-site computer facilities are located in the Centre for Function and Well-Being at 500 University Avenue. There are 47 microcomputers currently available, 24 hours/day and 7 days/week, in the 4<sup>th</sup> Floor Computer Resource Laboratory. A complete list of the software available can be found in Appendix I. In addition, the Human Physical Function Research Facility houses the Graduate Student Data Analysis Room (Basement), which can accommodate another 12 students. Table 3.3 identifies the location of each facility and its equipment.

**Table 3.3**

Location	Computer Laboratory	Equipment
Room 31	Graduate Student Data Analysis Room	12 networked PCs & printer
Room 444	Computer Resource Laboratory	47 networked computers dedicated to student needs
		Software (Appendix I)

### 3.4 Space

The Graduate Department of Rehabilitation Science, along with Occupational Therapy and Physical Therapy is located in the Centre for Function and Well-Being, a 10-storey building, located at 500 University Avenue. The Centre has been newly renovated and retrofitted specifically to create an environment that fosters learning, research and debate. A total of 850 *nasm*<sup>15</sup> of **on-site** space is assigned to research and research support activities, faculty and graduate student offices. A detailed breakdown of the research facilities is presented in Table 3.4. It must be noted that each laboratory is equipped with up to 4 workstations. On-site faculty members (n=12) also have access to newly renovated and furnished, private offices (~13 *nasm* each), with telephone and computer lines to the University mainframe. Approximately 42 *nasm* of space is allocated exclusively to GDRS students in shared office/study facilities on the 10th Floor and Basement level of the building (see Tables 3.4a and 3.4b).

It should be noted that some of the GDRS graduate students have their research and study space within the research laboratory of their **off-site** supervisors, as outlined in Table 3.4e. Combined off-site faculty office and research space totals approximately 13,345 ft<sup>2</sup> or 1240 m<sup>2</sup>.

**On-Site Space Allocations** for GDRS activities in the Centre for Function and Well-Being at 500 University Avenue:

**Table 3.4a**

Location	Purpose	Faculty	Space (nasm)
Level 10	<b>Graduate Department of Rehabilitation Science</b>		<b>Total 59</b>
1030	Office of Chair & Graduate Coordinator	M. Verrier A. Colantonio	<b>17</b>
1026	Office of Graduate Administrative Assistant	D. Wiltshire	<b>13</b>

<sup>15</sup> *nasm*: net assignable square metre (Council of Ontario Universities)

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Location	Purpose	Faculty	Space (nasm)
1011	Graduate Student Study Room		29



Table 3.4b

Location	Purpose	Faculty	Space (nasm)
Basement	<b>Human Physical Function Research Facility</b>		<b>Total 205.2</b>
33	<i>These are a series of interconnecting laboratories</i>		
	Graduate Student Data Analysis Room		~ 13 nasm

Table 3.4c

Location	Purpose	Faculty	Space (nasm)
Level 2 & 9	<b>Occupational Science Research Facility</b>		<b>Total 280.2</b>
262	Virtual Reality & Neurorehabilitation Laboratory	D. Reid	<b>45.0</b>
962	Dr. Colantonio's Research Lab	A. Colantonio	<b>29.4</b>
935	History Research in OT Lab	J. Friedland	<b>29.4</b>
961	Knowledge Translation & Practice Context Lab	S. Rappolt	<b>29.4</b>
952	Occupational Competence Lab	H. Polatajko	<b>29.4</b>
914	Quality of Life Research Unit	R. Renwick	<b>29.4</b>
963	Dr. Renwick's Research Lab	R. Renwick	<b>29.4</b>
968	Research Lab	TBA	<b>29.4</b>
970	Research Lab	TBA	<b>29.4</b>

**Table 3.4d**

<b>Location</b>	<b>Purpose</b>	<b>Faculty</b>	<b>Space (nasm)</b>
Level 8	<b>Physical Therapy Science Research Facility</b>		<b>Total 136.8</b>
805	Aging & Health Research Unit	C. Cott	<b>34.2</b>
801	Disability Studies Research Unit	K. Yoshida	<b>34.2</b>
851	Rehabilitation Evaluative Sciences Research Unit	S. Jaglal	<b>34.2</b>
803	Physical Therapy Evaluation & Education Research Facility	TBA	<b>34.2</b>

**Off-Site Space Allocations** are as follows:

**Table 3.4e**

<b>Location</b>	<b>Purpose</b>	<b>Faculty</b>	<b>Space (sq ft)</b>
Bloorview McMillan Children's Centre	Office can accommodate 15+ students (4 offices)	TBA	150 sq ft 2660 sq ft
	Sensory Motor Assessment Unit	TBA	4560 sq ft
	Gait Laboratory		
Sunnybrook & Women's College Health Science Centre (SWCHSC)	Office Centre for Studies in Aging (CSIA) - shared space for 5 students	G. Fernie	150 sq ft 2000 sq ft
	Office Cognitive Neurology	B McIlroy	100 sq ft 2 testing rooms
	Office	TBA	150 sq ft
	Centre for Studies in Physical Function (CSPF)		general office space for data analysis
West Park Hospital	Office	D. Brooks	55 sq ft
	Respiratory Rehabilitation Lab		several testing rooms
Hospital for Sick Children	Office use of 1 office for 1 student	N. Young	120 sq ft 1 office
	Paediatrics Outcomes Research Team		use clinical dept for research
Institute for Clinical Evaluative Studies	Office	J. Williams	200 sq ft
		S. Jaglal	100 sq ft
	Up to 8 Students Health Research Data Centre		2 offices: 8 students extensive access to large databases

Location	Purpose	Faculty	Space (sq ft)
University Health Network	Office  Up to 4 students Arthritis & Community Research & Evaluation Unit	E. Badley C.Cott	120 sq ft 100 sq ft NA 1 Assistant & Secretary Software, in-house library
Baycrest Geriatric Centre	Office Disabilities Research	D. Stuss D. Streiner	240 sq ft 240 sq ft 1 office
Toronto Rehabilitation Institute	Restorative Motor Control Laboratory (550 Univ Av site) Offices (550 Univ Ave site)  Laboratory (Lyndhurst site)	W. McIlroy M. Verrier J. Williams A. Davis K. Boschen M. Popovic	500 sq ft  200 sq ft 200 sq ft 100 sq ft 600 sq ft
Department of Physical Education and Health	Laboratory	S. Thomas	500 sq ft

### 3.5 Financial support of graduate students

The School of Graduate Studies<sup>16</sup> and the Faculty of Medicine (Appendix C) has implemented a [funding commitment policy](#) for all doctoral-stream students, which ensures that students receive full funding (tuition plus at least \$12,000 per year) for their studies.

Over the last two years, the GDRS has been successful in securing additional scholarship support, mainly from the teaching hospitals, resulting in average student funding well above the minimum. Funding is guaranteed for full-time students only, however, a number of part-time students have successfully applied for funds via the wide range of external scholarships made available through the Rehabilitation Sector and University at large. Table 3.5 reflects the funds acquired by full-time students only.

**TABLE 3.5**

Financial Support for Graduate Students								
	\$ Amount of Support From						Students Funded	
Year	External Scholarship (#)	Univ Scholarship (#)	TAs (#)	RAs (#)	Other* (#)	Total	# (%)	Av \$
1996/97	21,359 (3)	14,242 (3)	8,700 (3)	17,000 (2)	200 (1)	61,501	15 (46%)	8,786
1997/98	46,859 (8)	14,767 (5)	12,768 (6)	800 (1)	50,784 (13)	125,978	26 (76%)	6,299
1998/99	110,218 (11)	45,832 (10)	36,000 (10)	36,300 (6)	700 (1)	229,650	35 (51%)	12,758
1999/00	85,701 (9)	50,411 (13)	22,989 (12)	-	-	159,101	13 (100%)	12,238
2000/01	16,859 (1)	71,230 (8)	35,261 (14)	-	-	123,350	14 (93%)	8,810
2001/02	45,096 (4)	116,182 (9)	24,649 (8)	-	-	189,927	9 (100%)	20,659
2002/03	217,170 (7)	310,750 (17)	20,780 (7)	-	-	548,700	17 (100%)	32,276

<sup>16</sup> <http://www.sgs.utoronto.ca/current/financial/index.asp>

## 4 PROGRAM REGULATIONS AND COURSES

### 4.1 The intellectual development and the educational experience of the student

A wide variety of experiences will be built into our PhD program to promote self-direction, enhancement of intellectual capacity, interaction and collaboration that provide formal and informal opportunities for “discovery”.

The intellectual development of the student will be fostered initially through course work, which will assist with building a theoretical framework for their studies. Participation in the Presentations course (REH 3001Y) at an advanced level where there will be opportunities to develop critical analysis skills to emulate the behaviors required of young scientists and faculty will be part of their career development. The Advanced Issues course (REH 3100H) will be structured to expose the students to the richness of the collective faculty experience in rehabilitation research.

Exposure to other aspects of rehabilitation is key for those coming from specific discipline backgrounds. Opportunities for attending Rehabilitation Science Sector Research Days, Professional Research Meetings (i.e. CAOT<sup>17</sup>, CPA<sup>18</sup>, etc), the many seminar series of the Collaborative Programs, the research events in the cognate graduate departments and research institutes will add to their educational program in non-structured ways. One example is the Annual Rehabilitation Research Day, hosted by the Greater Toronto Area rehabilitation centres, where all GDRS students are encouraged to present their work in poster or presentation format, to gain feedback from their external colleagues. In addition, travel funds will be built into supervisors’ grants to ensure that students at the PhD level gain exposure to international meetings.

The quality of student life plays a vital role in enhancing intellectual growth and development. The Centre for Function and Well-Being has been physically structured (i.e. Alumni Café, student lounge, study rooms) to foster informal, curiosity-driven interactions between students and faculty from different disciplines. All students have access to this resource, even those who are normally co-located with their off-site supervisors (Table 3.4e). All GDRS courses are provided at the Centre, providing regular interaction between students and one of many opportunities to use the Centre’s premier facilities.

Special courses for software use e.g. NiVivo, will be held for groups of students. Teaching Assistantships will be available to the students to develop their teaching skills. Students will gain experience in applying for grants via REH 3120H (Advanced Research Methods), which will require a proposal written in CIHR/SSHRC/NSERC format. Fellow students will have an opportunity to critique these proposals to enhance their critical appraisal skills.

Students will be required to apply for external funding to be eligible for top-up awards, which will assist them in learning the personnel support funding process.

<sup>17</sup> Canadian Occupational Therapy Association

<sup>18</sup> Canadian Physiotherapy Association

Knowledge Translation is currently of great import in the field. Strategies for new methods will be incorporated into REH 3100H. This particular course will be used to push the envelope for innovations and discovery that are key to further developing rehabilitation science.

Currently, Program Advisory Committees (PACs) have members from cognate departments to strengthen the rigor of thesis work and advise on aspects of the student's academic program. They are vital for opening up doors for new approaches and access to other methods and laboratories for data collection and intellectual development. PAC meetings, which occur at least every six months, provide a forum for intellectual input and debate, which fosters the development of the student.

A mock thesis defense in an open forum for students and faculty will provide further exposure to the questioning process in formal situations.

## 4.2 Program regulations (Appendix H).

### 4.2.1 Admissions

PhD applicants will have graduated with an A- from a relevant (i.e. MScOT; MScPT, MSc. (i.e. Rehab) master's program. Students will be counselled prior to admission and provided with materials regarding potential PhD supervisors. The admissions process for the PhD program will include a statement of intent, two confidential reference letters that indicate the applicant's preparation and competence to conduct research, and a Curriculum Vitae. \*

Applicants, whose first language is not English, must provide evidence of written and verbal proficiency in English, by completing one of the following tests:

- ✓ Test of English as a Foreign Language (TOEFL) and the Test of Written English (TWE).

Minimum scores required are as follows:

• TOEFL	Paper-based exam	600
• TOEFL	Computer-based exam	250
• TWE	Paper-based exam	5
• TWE	Computer-based exam	5

- ✓ Michigan English Language Assessment Battery (MELAB) 87
- ✓ International English Language Testing System (IELTS) 7.5.

These standards are higher than the minimum established by the [School of Graduate Studies](#) <sup>19</sup>.

<sup>19</sup> <http://www.sgs.utoronto.ca/prospective/admission/english.asp>

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\*Current GDRS students enrolled in a PhD in IMS will have the choice of completing in IMS or completing in GDRS

#### **4.2.2 Direct Entry into the PhD Program**

For outstanding students, direct entry into a PhD without a previous master's degree will be considered. The following requirements are in addition to the normal requirement for admission to the PhD program. Applicants must:

- ✓ Have a minimum A+/A average (GPA 4.0) in an undergraduate program from a recognized university
- ✓ Have previous relevant research experience, outstanding references and a personal recommendation from a potential supervisor
- ✓ Complete courses REH 1100H Theory and Research in Rehabilitation Science, REH 1130H Theory and Research in Occupational Science **or** REH 1140H Theory and Research in Physical Therapy **and** REH 1120H Research Methods for Rehabilitation Science **plus**
- ✓ Successfully complete a qualifying examination within the first 18 months of the program

#### **4.2.3 MSc/PhD Transfer**

Entry to the PhD program in GDRS will normally require a thesis Master's degree in a Life Science field or equivalent MScOT/PT degree, with a minimum A- standing. Those students without a thesis Master's, an MScOT/PT, or equivalent research experience, but who wish to complete a PhD degree, may first enrol in the MSc program, then petition to transfer into the PhD program within 18 months of registration. The student must:

- ✓ Maintain satisfactory performance (minimum A- average) in their Master's course work
- ✓ Prepare and defend a thesis proposal to an examining committee; and
- ✓ Complete the prerequisite course work.

All transfers require the approval of the Graduate Coordinator.

#### **4.2.4 Course Requirements**

Appendix J provides a list of all courses offered and a brief description of each. Students without sufficient preparation may be required to take introductory courses in addition to the PhD Program requirements:

- ✓ REH 1100H Theory and Research in Rehabilitation Science
- ✓ REH 1120H Research Methods for Rehabilitation Science or equivalent
- ✓ REH 1130H Theory and Research in Occupational Science or equivalent
- ✓ REH 1140H Theory and Research in Physical Therapy Science or equivalent

The Graduate Coordinator will establish equivalency requirements at the time of admission.

PhD Program for ideally qualified students:

Students will be required to take a minimum of two half courses, the research presentations course and complete and defend a thesis:

- ✓ REH 3120H Advanced Research Methods
- ✓ REH 3100H Advanced Rehabilitation Research Issues

- ✓ REH 3001Y Advanced Rehabilitation Presentations & Proceedings (two years, CR/NCR)
- ✓ REH 9999Y Thesis

Additional Course Offerings:

GDRS courses currently offered will be accessible for any student requiring courses to provide breadth to their PhD program:

- ✓ REH 1110H Rehabilitation Services Research and Policy
- ✓ REH 1510H Disordered and Restorative Motor Control
- ✓ REH 1520H Physiological Factors Constraining Rehabilitation in the Elderly
- ✓ REH 1540H Research Topics in Assistive Technology
- ✓ REH 1550H Advanced Study of Musculoskeletal Tissues for the Rehabilitation Specialist
- ✓ REH 1610H Environmental Theory in Rehabilitation
- ✓ REH 1620H Methodological Issues in Research on Aging and Health
- ✓ REH 1630H Psychosocial Adaptation and Quality of Life Issues
- ✓ REH 1640H Sociology of Disability
- ✓ REH 2000H Individual Readings and Research

Other equivalent courses from cognate departments will also be considered to add to the depth of a student's program. The Graduate Coordinator will approve the recommendation regarding additional course work from the Program Advisory Committee.

#### **4.2.5 Examinations**

A comprehensive examination with both a written and oral component will occur in the first eighteen months of the program. Included in the program will be questions relevant to the student's thesis work and to the field of rehabilitation science. The comprehensive examination committee will consist of three GDRS faculty.

#### **4.2.6 Thesis Proposal**

A thesis proposal will be required prior to approval of data collection. The proposal will be presented to the PAC eighteen months into the program. Approval to proceed will be granted at this stage. Students who are not successful at this point will be given the option of transferring to the MSc degree program if they do not already hold this degree.

#### **4.2.7 Thesis Requirements**

Students are required to prepare and defend a thesis as per the regulations of the [School of Graduate Studies](http://www.sgs.utoronto.ca/current/thesis/index.asp)<sup>20</sup>. The thesis will generally be considered to be a body of work equivalent to three peer-reviewed research papers. If thesis consists of 3 peer-reviewed published papers it will also

<sup>20</sup> <http://www.sgs.utoronto.ca/current/thesis/index.asp>



include a formal introduction and discussion section. The approach to the thesis presentation will be recommended by the PAC and approved by the Graduate Coordinator.

#### **4.2.8 Progress through the Program**

Year I & II Course Work, Comprehensive Examination and Research Proposal should be completed within 18 months

Year III 3001Y Doctoral Research  
Writing of Thesis

Year IV Writing of Thesis  
Doctoral Research Thesis Defense

#### **4.2.9 Progress reports**

At the end of the first year of registration and once a year thereafter, all students enrolled in a thesis program are required to complete an Annual Research Progress Report detailing the achievements of the previous year and the objectives for the next year. This report is submitted to the PAC, where permission to continue to register in the program will depend on a satisfactory report. A copy of the report form is included as Appendix K.

#### **4.2.10 Thesis evaluation procedures**

A subcommittee of the Graduate Affairs and Appointments Committee will develop guidelines for the review of doctoral dissertations. These guidelines will include Timelines for writing up, feedback, completion and defense of thesis, as well as Significance and Scope of the Topic, Scholarship (Literature Review, Theory and Originality), Research Design (Question, Design, Population & Sample, Data Collection, Data Analysis), Ethics and Presentation (Organization, Clarity and Technical Adequacy).

### **4.3 Flexible-time Program**

University of Toronto does not offer the option of part-time studies for PhD students, however a [Flexible-time policy for PhD](http://www.sgs.utoronto.ca/prospective/admission/english.asp)<sup>22</sup> studies can be considered once the program is established for two years

<sup>21</sup> <http://www.sgs.utoronto.ca/prospective/admission/english.asp>

<sup>22</sup> <http://www.sgs.utoronto.ca/current/calendar/degree2.asp#flextimephd>

#### 4.4 Total graduate courses listed and level

Table 4.4 lists the graduate courses offered during each of the past three years with the enrolments for the MSc program.

**Table 4.4**

Courses Offered to Graduate Students in the Past Three Years					
Course	Faculty member(s) responsible	2000/01	2001/02	2002/03	Totals
REH1100H	M. Verrier	9G <sup>1</sup>	11G	12G	32G
REH1120H	S. Jaglal	4G	8G	8G	20G
REH1620H	C. Cott/ A. Colantonio	0	0	2 (2) <sup>2</sup> G	4G
REH2000H	D. Brooks	3G	1G	4G	8G
REH2001Y <sup>3</sup>	K. Boschen	16G	12G	24G	52G

<sup>1</sup> Number of **graduate** students who enrolled in the course

<sup>2</sup> Two students are from other programs

<sup>3</sup> See Appendix L for the 2003 seminar schedule

The Graduate Department of Rehabilitation Science does not offer combined courses in which both graduate and undergraduate students can enrol.

#### 4.5 Collateral and supporting departments

Two major departments will have collaborations with the PhD program in Rehabilitation Science: [Public Health Sciences](http://pht.utoronto.ca/)<sup>23</sup> and [Health Policy, Management and Evaluation](http://utoronto.ca/hpme)<sup>24</sup>, as these departments have been offering advanced research methodology courses over two decades. Access to these courses by Rehabilitation Sciences PhD students will add richness to their program.

## 5 OUTCOMES

### 5.1 Enrolment and graduations

#### 5.1.1 Master's program

##### 5.1.1.1 Cohort data

<sup>23</sup> <http://pht.utoronto.ca/>

<sup>24</sup> <http://utoronto.ca/hpme>

**Table 5.1.1.1a**

<b>New Enrolments, Withdrawals and Graduations in the Master's Program by Year of Admission (Full-Time)</b>									
<b>Year <sup>1</sup></b>	<b>New<sup>2</sup></b>	<b>after 6 terms</b>				<b>after 9 terms</b>			
		<b>Trans PhD <sup>3</sup></b>	<b>Withd <sup>4</sup></b>	<b>Compl <sup>5</sup></b>	<b>IP <sup>6</sup></b>	<b>Trans PhD <sup>7</sup></b>	<b>Withd <sup>8</sup></b>	<b>Compl <sup>9</sup></b>	<b>IP <sup>10</sup></b>
<b>2002</b>	9	0	0	0	9	0	0	0	9
<b>2001</b>	5	0	0	0	5	0	0	0	5
<b>2000</b>	2	0	0	0	2	0	0	0	2
<b>1999</b>	6	0	1	3	2	0	1	1	0
<b>1998</b>	8	0	0	5	3	0	0	2	1
<b>1997</b>	4	0	1	0	3	0	0	3	0
<b>1996</b>	1	0	1	0	0	0	0	0	0

<sup>1</sup> Calendar year with three entry points: (Jan. May and Sept.).

<sup>2</sup> Sum of intake for each entry point of a given calendar year.

<sup>3</sup> All students from that cohort who transferred to the PhD within six terms of entry point.

<sup>4</sup> All students from that cohort who had withdrawn within six terms of entry point.

<sup>5</sup> All students from that cohort who had completed the program within six terms of entry point.

<sup>6</sup> All students from that cohort who were still in program or on approved leave after six terms of entry point

<sup>7</sup> All students from that cohort who transferred to the PhD within nine terms of entry point.

<sup>8</sup> All students from that cohort who had withdrawn within nine terms of entry point.

<sup>9</sup> All students from that cohort who had completed the program within nine terms of entry point.

<sup>10</sup> All students from that cohort who were still in program or on approved leave after nine terms from entry point.

**Table 5.1.1.1b**

<b>New Enrolments, Withdrawals and Graduations in the Master's Program by Year of Admission (Part-Time)</b>									
<b>Year <sup>1</sup></b>	<b>New<sup>2</sup></b>	<b>after 6 terms</b>				<b>after 9 terms</b>			
		<b>Trans PhD <sup>3</sup></b>	<b>Withd <sup>4</sup></b>	<b>Compl <sup>5</sup></b>	<b>IP <sup>6</sup></b>	<b>Trans PhD <sup>7</sup></b>	<b>Withd <sup>8</sup></b>	<b>Compl <sup>9</sup></b>	<b>IP <sup>10</sup></b>
<b>2002</b>	2	0	0	0	2	0	0	0	2
<b>2001</b>	6	0	0	0	6	0	0	0	6
<b>2000</b>	6	0	0	0	6	0	0	1	5
<b>1999</b>	3	0	0	0	3	0	0	0	3
<b>1998</b>	6	0	0	2	4	0	0	0	4
<b>1997</b>	10	0	0	0	10	0	0	10	0
<b>1996</b>	8	0	0	0	8	0	0	0	8

### 5.1.1.2 Flow Through Data

**Table 5.1.1.2a**

<b>Master's Total Enrolments, Transfers, Withdrawals and Graduations by Year (Flow-Through Data) Full-Time</b>							
<b>Year<sup>1</sup></b>	<b>Total Enrol<sup>2</sup></b>	<b># female (%)<sup>3</sup></b>	<b># visa (%)<sup>4</sup></b>	<b>Total Transfers<sup>5</sup></b>	<b>Total Withdrawals<sup>6</sup></b>	<b>Total Graduations<sup>7</sup></b>	<b>Total Continuing<sup>8</sup></b>
<b>2002</b>	19	17 (89)	1	0	1	1	17
<b>2001</b>	15	12 (80)	1	0	0	5	7
<b>2000</b>	10	9 (90)	1	0	2	0	8
<b>1999</b>	17	15 (88)	0	1	2	11	3
<b>1998</b>	19	18 (95)	0	0	1	0	18
<b>1997</b>	9	9 (100)	0	0	1	0	8
<b>1996</b>	11	11 (100)	0	0	1	0	10
<b>1995</b>	5	5 (100)	0	0	0	4	1

**Table 5.1.1.2b**

<b>Master's Total Enrolments, Transfers, Withdrawals and Graduations by Year (Flow-Through Data) Part-Time</b>							
<b>Year<sup>1</sup></b>	<b>Total Enrol<sup>2</sup></b>	<b># female (%)<sup>3</sup></b>	<b># visa (%)<sup>4</sup></b>	<b>Total Transfers<sup>5</sup></b>	<b>Total Withdrawals<sup>6</sup></b>	<b>Total Graduations<sup>7</sup></b>	<b>Total Continuing<sup>8</sup></b>
<b>2002</b>	24	22 (92)	0	0	2	1	21
<b>2001</b>	34	32 (94)	0	0	0	8	26
<b>2000</b>	28	26 (93)	0	0	0	0	28
<b>1999</b>	24	23 (96)	0	0	1	3	20
<b>1998</b>	40	39 (98)	0	0	0	0	40
<b>1997</b>	29	29 (100)	0	0	0	0	29
<b>1996</b>	13	13 (100)	0	0	0	0	13
<b>1995</b>	2	2 (100)	0	0	1	0	1

<sup>1</sup> Calendar year with three entry points: (Jan. May and Sept.).

<sup>2</sup> All students registered in the program in that calendar year continuing and new (for continuing, use numbers reported November 1 of the previous year).

<sup>3</sup> Number of female students and (%).

<sup>4</sup> Number of visa students and (%).

<sup>5</sup> All students who transferred to the PhD within that year with (%).

<sup>6</sup> All students who withdrew within that year with (%).

<sup>7</sup> All students who completed the program within that year with (%).

<sup>8</sup> All students who were still in program or on approved leave in that year with (%).

### 5.1.1.3 Mean and median times to completion

**Table 5.1.1.3**

<b>Times-to-Completion of Master's program (years)</b>		
	<b>Mean (range)</b>	<b>Median</b>
Full-Time only	2.33 (0.92 – 3.75)	2.38
Part-Time only	4.05 (1.92 – 5.17)	4.46
Combined Full- & Part-Time	3.04 (0.92 - 5.17)	2.59

## 5.2 Employment

**Table 5.2**

<b>MSc Graduate's Employment Status</b>						<b>Original No. of Graduates</b>
<b>Year of Graduation</b>	<b>Professional Master's Faculty</b>	<b>PhD or Other Studies</b>	<b>Research Assistant / Associate</b>	<b>Academic Practitioner (OT/PT)</b>	<b>Professional or Specialist Practitioner (OT/PT)</b>	
<b>2002</b>	1	1	2	1 (PT)	1 (PT)	<b>6</b>
<b>2001</b>	0	2	2	1 (OT) 3 (PT)	2 (OT) 4 (PT)	<b>14</b>
<b>2000</b>	1	2 1 (MD)		2(OT) 1 (PT)	1 (OT)	<b>8</b>
<b>1999</b>		1				<b>2<sup>1</sup></b>
<b>1998</b>	2		2			<b>4</b>
<b>Totals</b>	<b>4</b>	<b>7</b>	<b>6</b>	<b>8</b>	<b>8</b>	<b>34</b>

<sup>1</sup> Missing data on one graduate

Of the 34 master's students who have graduated since 1998, we have obtained up-to-date information on 33. Most graduates (53%) are employed in professional roles that utilize their research skills, such as faculty in professional master's degree programs, research associate positions and practitioner roles with responsibility for a variety of academic activities. An additional 22% are actively pursuing PhD or other studies. The remainder is employed in practitioner roles: some are part-time or on parental leave, while others are in Academic Health Science Centre positions which utilize their skills informally.

The School of Graduate Studies has identified the goal of moving MSc students more quickly, via transfer, to PhD level studies - it is anticipated that provision of a PhD program option in the Graduate Department of Rehabilitation Science will facilitate students' choices/decisions in this regard. Currently, we have enquiries from our existing MSc students to enroll in the PhD program when it is available.

## 5.3 Publications

Of the 34 graduates of the MSc program since 1998, 16 (47%) have at least one publication (or work accepted for publication) emanating from their graduate work, four (12%) graduates are preparing revisions for resubmission, and one (3%) is working on a first submission document.

The publications are in well-known journals such as:

- American Journal of Occupational Therapy
- Annals of Neurology
- Archives of Physical Medicine and Rehabilitation
- Arthritis Care in Research
- Augmentative and Alternative Communication
- Canadian Journal of Occupational Therapy
- Canadian Journal on Aging
- Chest
- Clinical Orthopaedics and Related Research
- Clinical Science
- Disability and Rehabilitation
- Journal of Advance Nursing
- Journal of Aging Studies
- Journal of Cardiopulmonary Rehabilitation
- Journal of Hand Therapy
- Journal of Orthopaedics and Sports Physical Therapy
- Movement Disorders
- Neuroreport
- Occupational Therapy International
- Physical and Occupational Therapy in Pediatrics
- Physiotherapy Canada
- Qualitative Health Research

In addition, of three students who will graduate this year (2003), one has already published part of her thesis work in *Disability and Society*<sup>25</sup>, and two others are preparing to submit their work in the next month.

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<sup>25</sup> Zekovic B., Renwick, R. (2003): Quality of Life for Children and Adolescents with Developmental Disabilities: review of conceptual and methodological issues relevant to public policy, 18 (1), 19-34.

#### 5.4 Projected graduate enrolments

The MSc program receives approximately 100 serious inquiries and 40-50 applications each year, resulting in the Department achieving its target enrolments of 24 FTE students for the past 5 years. By establishing a PhD program, there is no anticipation of difficulty in meeting enrolment targets for the future.

Table 5.4 presents the projected enrolment for the next seven years for the master's and doctoral programs.

**TABLE 5.4**

PROJECTED ENROLMENTS							
Master's (M) and Doctoral (D) Programs							
YEAR	FULL-TIME		PART-TIME		TOTAL		FTE
	M	D	M	D	M	D	
2003	20	0	18	0	38	0	26
2004	20	4	12	0	32	4	28
2005	22	6	9	0	31	6	31
2006	23	8	6	0	29	8	33
2007	22	10	3	0	25	10	33
2008	21	12	0	0	21	12	33
2009	21	14	0	0	21	14	33
2010	21	16	0	0	21	16	33

The trend in graduate enrolment is expected to be very similar to that observed over the past seven years, i.e., a fairly stable intake. We will ensure that the rate of growth is at a steady state, so that quality is not compromised.

## APPENDIX B

### Collaborative Programs

Section extracted from GDRS Student Handbook

Graduate students in GDRS may participate in a range of [Collaborative Programs](#). Collaborative programs currently available include:

- ♦ [Neurosciences](#)
- ♦ [Human Development, Life Course and Aging](#)
- ♦ [Cardiovascular Sciences](#)
- ♦ [Biomedical Engineering](#)

Students who register in a collaborative program are required to complete the requirements of both GDRS and the Collaborative Program. The requirements for the Collaborative Program vary by Program, but usually require completion of specific courses, attendance at a seminar series hosted by the Collaborative Program, and a thesis committee with representatives from both GDRS and the Collaborative Program. When these requirements have been completed students will obtain a specialization designation from the SGS upon completion of their degree. The School of Graduate Studies Calendar provides specific details for each Program. Students interested in registering for any collaborative program should contact the GDRS for further details.

### Neurosciences

The graduate units of Anatomy and Cell Biology, Biochemistry, Cellular and Molecular Pathology, Clinical Biochemistry, Dentistry, Immunology, Medical Science, Molecular and Medical Genetics, Nutritional Sciences, Pharmacology, Pharmacy, Physiology, Psychology, Speech Pathology, Rehabilitation Science and Zoology participate in the graduate program. The GDRS currently offers REH 1510 *Disordered and Restorative Motor Control*, as a course co-registered with this program.

Molly Verrier is the Graduate Faculty Representative for this program.

Address: J.O. Dostrovsky, Director  
Room 102, Tanz Neuroscience Building  
6 Queen's Park Crescent  
University of Toronto  
Toronto, ON M5S 1A8

Telephone: 416-978-4894

Fax: 416-978-1878

E-mail: <mailto:p.neuroscience@utoronto.ca>

Web: <http://www.utoronto.ca/neurosci>



## **Human Development, Life Course and Aging**

The principal mandate of the Institute is to conduct basic, multidisciplinary research from a social science perspective on human development, the life course and aging. Life course analysis aims to understand the causes, processes and consequences of change over the course of life. Human development and aging are seen to involve the interaction of social, psychological and biological processes from birth to death.

Angela Colantonio is the Graduate Faculty Representative for this program.

Address: Rosemary Meiers, Director  
Suite 106, 222 College Street  
University of Toronto  
Toronto, ON M5T 3J1

Telephone: 416-978-0377

Fax: 416-978-4771

E-mail: [hagan@chass.utoronto.ca](mailto:hagan@chass.utoronto.ca)

Web: [www.utoronto.ca/lifecourse/collaborative](http://www.utoronto.ca/lifecourse/collaborative)

## **Cardiovascular Sciences Collaborative Program**

The Cardiovascular Sciences Collaborative Program is a program created to develop co-operative and joint graduate teaching and research across departmental boundaries under the [Faculty of Medicine](#) and the [Faculty of Physical Education and Health](#). The Program builds on the strengths of the collaborating graduate departments (Biomedical Engineering, Community Health, Institute of Medical Science, Laboratory Medicine and Pathobiology, Pharmacology, Physiology and Rehabilitation Science), the clinical departments of Medicine and Surgery, and the Heart and Stroke/Richard Lewar Centre of Excellence - enhancing the visibility of cardiovascular studies and facilitating interdisciplinary training and research.

Scott Thomas is the Graduate Faculty Representative for this program.

Address: Dr. C. Wittnich, Director  
University of Toronto  
FitzGerald Building, Room 83D  
150 College Street  
Toronto, Ontario M5S 3E2

Telephone: (416) 978-0749

Fax: (416) 946-5713

E-mail: [cv.program@utoronto.ca](mailto:cv.program@utoronto.ca)

Web: [www.cscp.utoronto.ca](http://www.cscp.utoronto.ca)

## **Institute of Biomaterials and Biomedical Engineering**

Biomaterials and biomedical engineering consists of the application of the concepts and methods of engineering and physics to the study of living systems, to the design and construction of systems to measure basic physiological parameters, to the development of instruments and techniques for biological and medical practice, and to the development of artificial organs. By its nature the majority of the Institute's work is of an interdisciplinary nature, which involves close collaboration with other departments of the University and associated hospitals.

Denise Reid is the Graduate Faculty Representative for this program.

Address: M. Joy, Coordinator of Graduate Studies  
Room 407, Rosebrugh Building  
4 Taddle Creek Road  
University of Toronto  
Toronto, ON M5S 3G9

Telephone: 416-976-8019

Fax: 416-978-4317

E-mail: [admissions.ibbme@utoronto.ca](mailto:admissions.ibbme@utoronto.ca)

Web: <http://www.utoronto.ca/IBBME/>

## APPENDIX C

### **Guiding Principles for all sources of graduate student funding in the Faculty of Medicine**

- 1) Graduate student enrolment and funding policies must be aligned with the strategic plan for the Faculty of Medicine and its Departments.
- 2) Graduate student enrolment and funding must be linked to the number of full time faculty in a graduate unit and their level of research funding to help support graduate student funding.
- 3) During the allocation of funding for graduate students from the Provost, Graduate Units that currently ensure full funding of doctoral stream students should benefit along with those which have been unable to secure full funding for their students to date. It is expected that all units will benefit from all increases in funding to doctoral students provided from the University or Faculty of Medicine. In the case of Graduate Units, which use research grant funding to fully support their doctoral stream students, increased funding for doctoral students will help to off-set the contributions of the supervisors from their research grants.
- 4) In all Graduate Units, doctoral stream students must apply for major sources of external, e.g., NSERC, CIHR, and internal, e.g., OGSST, funding to ensure that the calculation of "shortfall" in funding realistically reflects the true differences in available awards to graduate students and supervisors in different fields of biomedical research.
- 5) The Faculty of Medicine must ensure that all sources of funding for all graduate students are carefully documented and reported to the Provost and Graduate Chairs annually to assess financial need among students within and among all the Graduate Units.
- 6) Full funding for all doctoral stream students in the Faculty of Medicine should be at the level of CIHR studentships.
- 7) Allocation of U of T Open Fellowship funds should continue to be calculated on the basis of full time enrolment in the MSc (2 years) and PhD (4 years) over a rolling 5 year average. For new or officially expanded doctoral programs, immediate adjustments to eligibility will be made. The Faculty must ensure that the University allocates U of T Open funding equitably to our Graduate Units taking into account similarities among the Community Health and Rehabilitation Sectors with Humanities and Social Sciences (SGS Divisions I and II), which have benefited from disproportionate increases in U of T Open funding in 1999-00 and 2000-01 compared to the graduate units in Divisions III and IV.
- 8) A funding policy for professional Masters students must be developed simultaneously with the full funding policy for doctoral stream students within the Faculty of Medicine.
- 9) The Faculty of Medicine aim to provide full funding packages (4 years ) to all doctoral students within the next 5 years.

## APPENDIX D

### **Graduate Department of Rehabilitation Science University of Toronto, Faculty of Medicine Graduate Affairs and Appointments Graduate Appointments and Re-appointments Policy**

The Graduate Department of Rehabilitation Science is committed to the pursuit and promotion of scholarly activity. The appointment and maintenance of faculty of the highest academic calibre is necessary to fulfil its goal. This document outlines the process for appointments and re-appointments to the faculty within the GDRS

The Appointments and Re-appointments policy provides consistent and exacting standards for faculty graduate appointments across the diversity of scholarly fields in rehabilitation. The policy also provides mechanisms for monitoring scholarship and academic productivity to justify re-appointment in the GDRS.

#### Administration of Graduate Appointments to GDRS:

The Graduate Affairs and Appointments Committee (GAAP) of the GDRS is responsible for appointments and re-appointments to the GDRS faculty. The Chair of the GDRS is responsible for reviewing all applications for appointment and re-appointment and forwarding applications to the GAAP. Following the decision of the GAAP, the Chair submits recommendations for appointment, reappointment or retirement to the School of Graduate Studies (SGS).

#### Criteria for Appointment:

The criteria for appointment to the GDRS is based on academic grounds as defined by the School of Graduate Studies at the University of Toronto. These include:

1. academic qualifications to the level of Ph.D. or equivalent
2. evidence of scholarship through scholarly publications and peer reviewed research funding, or, in the case of individuals who have recently received an academic appointment, strong potential for scholarship through scholarly publications and peer reviewed research funding
3. clear demonstration of independent scholarship beyond the Ph.D. (or equivalent) level
4. Willingness to participate in all graduate activities of the GDRS.

In addition, the SGS permits appointment to the graduate faculty under the heading of "Creative Professional Achievement". Criteria for admission in this category include demonstration of exemplary practice, innovation in practice, peer acknowledgement or public impact. Fulfilment of these criteria (either

academic or creative) will be sufficient grounds for recommendation to the SGS for appointment.

#### Appointment Categories and Duties:

There are four categories of graduate appointment within the School of Graduate Studies:

Associate Member. This status will be applied to individuals who have recently received an academic appointment and show great promise as scholars and independent investigators. The initial term of appointment will generally be of three year's duration with reappointment or promotion following an end-of-term review.

Duties may include any and/or all of the following:

- to participate in GDRS activities, including Student Seminars, GDRS committees and Sector initiatives
- teach, set and mark examinations for a designated graduate course/courses
- serve as a member of a thesis committee and advise graduate students, with the permission of the Chair, but not serve as a sole or major supervisor, whether formally or otherwise, of a Ph.D. student
- serve as the sole supervisor of a Master's level thesis;
- assist in the setting and marking of comprehensive (general) examinations, but in this case, the responsibility must rest with a Member of the graduate faculty;
- serve as a non-voting member of a Final Ph.D. Oral Examination Committee (in exceptional circumstances, an Associate Member may serve as a voting member, with the approval of the Associate Dean of the Division of Graduate Studies. Only one Associate Member of the graduate faculty shall be permitted to serve on any one Committee, in either capacity of voting or non-voting).
- serve as a member of any committee involving graduate studies to which he or she may be appointed or elected.

Full Member. The Member category is generally reserved for faculty members who have clearly established a continuing research program, and show sustained evidence of scholarship.

Criteria for appointment in this category include (a) demonstration of sustained and ongoing excellence in independent research activities, and (c) experience as a graduate student supervisor. The initial term of appointment will generally be of three year's duration with reappointment following an end-of-term review.

Duties may include any and/or all of the following:

- to participate in GDRS activities, including Student Seminars, GDRS committees and Sector initiatives
- act as the sole or major supervisor of a doctoral and master's thesis, and as a

- member of thesis committees;
- serve as Chair or voting member of a final oral examination committee, where such examinations are required, and perform all duties associated therewith;
- assume responsibility for the setting and marking of comprehensive (general) examinations;
- teach, set and mark examinations for a graduate course and give such other graduate direction as may be required;
- consider serving as Chair or Graduate Coordinator of the GDRS;
- serve as a member of any committee involving graduate studies to which he or she may be appointed or elected.

Member Emeritus. Appointment to the graduate faculty of the GDRS SGS is normally terminated upon retirement. A full professor, who, on retirement, becomes a U of T professor emeritus, may be nominated for GDRS Member Emeritus status. This appointment is normally used to allow a graduate faculty member to complete existing graduate supervisions and teaching responsibilities.

Applicants for Member Emeritus status who wish to undertake fresh supervisions or additional duties must be able to demonstrate that s/he will be able in some capacity to enrich graduate student life at the University and can meet the criteria for appointment as a Member.

Duties may include any and/or all of the following:

- to participate in GDRS activities, including Student Seminars, GDRS committees and Sector initiatives
- teach, set and mark examinations for a graduate course
- serve as a member of a thesis committee and as a voting member of a final oral examination committee
- to assume responsibility for the setting and marking of comprehensive (general) examinations
- to continue to act as a sole or major supervisor of a doctoral or master's thesis
- to take on new master's or doctoral supervision, which will be permitted only if the Chair demonstrates need and only if the candidate's C.V. exhibits appropriate academic activity

Graduate students registered in the University of Toronto are not appointed to Membership, Associate Membership or Assistant Membership of the GDRS faculty.

#### Re-appointment, Review and Promotion:

Graduate Affairs and Appointments Committee reviews all graduate appointments to the GDRS on a regular basis. Limited Term appointments are reviewed at the end of the term; Continuing appointments are also reviewed on a regular basis (approximately every five years).

A recent Curriculum Vitae and the opinion of the Chair of the applicant's primary

academic department and, if applicable, cross-appointed Graduate Departments are routinely solicited as part of the reappointment/promotion process. A number of factors are considered in making recommendation for reappointment and/or promotion, including:

- appropriateness of the candidate's job description as defined by the primary academic department
- promotion through the professorial ranks
- granting of tenure
- evidence of continuing scholarly activities
- previous performance in the GDRS graduate program, including graduate supervision, program advisory committee and administrative committee membership, and graduate teaching
- commitment to participation in the full spectrum of GDRS activities, sector research and planning initiatives.

Generally, an individual promoted to the level of Associate Professor and granted tenure during his/her term as a or Associate Member, Limited Term, will be promoted to the status of Full Member, Continuing, provided that promotion is based on evidence of continuing scholarship during the limited term period. In the event that tenure or promotion to the level of Associate Professor is granted based on non-academic activities, such as exemplary clinical practice or teaching, reappointment and/or promotion through the graduate ranks will be based on evidence of creative professional activity of equivalent standards.

Reappointment and promotion are **not** automatic. Graduate faculty must maintain an active interest and participation in graduate studies and GDRS activities if they wish to retain their GDRS appointment. Unsatisfactory performance during a limited term cross-appointment may result in retirement from the faculty.

#### Retirement of the Graduate Faculty:

According to the Statues of the School of Graduate Studies, the Chair of the GDRS shall recommend to the Dean of SGS during each session the non-reappointment of individuals to the graduate faculty who are no longer eligible for membership. This list should include individuals who have died, retired, or voluntarily resigned during the previous session. The criteria for removal of individuals who do not fit into these groupings are less well defined, although the process per se is clearly in place. The SGS Yellow Book states "Grounds for removal from the Graduate Faculty are relative to the criteria for membership in the Graduate Faculty and to the contact of graduate teaching in all its aspects."

In order to define a policy for removal of faculty, the GDRS must first outline the intent of this process. Except under circumstances of professional misconduct, the intent is one that is not to be construed as punitive. Rather, the aim is to maintain a vigorous and active faculty that is scientifically productive and active in graduate student development. Accomplishment of this goal will serve to enhance the reputation of the GDRS both within and outside the University. This

will improve the GDRS's ability to attract high quality faculty, to attract excellent graduate students and to train individuals for positions in academic institutions. Specifically, graduate training at the GDRS will be considered to be of the highest stature.

The following criteria will be taken into consideration when determining whether an individual is to be asked to voluntarily resign from the GDRS:

1. evidence of ongoing excellence in research and scholarship
2. involvement in graduate student training during the previous five year
3. opinion of the Chair of the individual primary academic department and any cross-appointed graduate department
4. Participation in the full spectrum of activities and responsibilities of GDRS faculty.

The expectation is that individuals who are not actively involved in graduate student training will voluntarily resign from their graduate appointment to the GDRS. Faculty who do not participate in the GDRS graduate program will be evaluated by the GAAP as to their suitability for continued appointment. If, upon initial review, the GAAP feels that the graduate faculty member's performance may not warrant continuation of the appointment, the primary academic chair will be consulted to obtain further information needed for a more detailed review. Both the academic chair and the graduate faculty member will be informed of the reasons for the final decision regarding continuation of the appointment.

Appeals of the decisions of the GAAP pertaining to the nomination to or the resignation from the GDRS should be directed to the Chair.

#### Application Procedure:

Applicants for a graduate appointment to the GDRS should provide the Chair with the following documentation:

1. an up-to-date curriculum vitae containing the following information:
  - date of document preparation
  - name of candidate
  - degrees: University, discipline, year
  - academic and other relevant appointments: position, employer, dates
  - honours
  - membership in and service to learned, scientific or professional societies
  - previous experience (if any) in graduate faculty activities (e.g. thesis supervision, graduate teaching)
  - research grants and contracts during the last five years, including: granting agency, years held, project title, amount awarded/year and number of co-investigators
  - Publications: a lifetime list separated as follows: doctoral thesis; books or book chapters, review articles; papers in refereed journals; papers in published conference proceedings; patents granted or pending;



- technical reports relevant to academic work; other publications.
  - statement of creative professional activity (if applicable)
  - A statement may be appended, giving any other information, which the applicant deems relevant to the appointment.
2. letter of support from the Chair of the primary academic Department in which the applicant has a faculty appointment
  3. letter of support from the head of all graduate units in which the applicant holds a graduate appointment
  4. letter from the applicant stating why s/he wishes a graduate faculty appointment in the GDRS.

Completed dossiers will be reviewed by the GAAF quarterly basis, according to the standards set in the statutes of the School of Graduate Studies. Upon occasion, additional information may be solicited from the applicant. The GAAF makes a recommendation for nomination to the Chair, who has final authority for the appointment/reappointment, and reports the outcome to the Dean of the School of Graduate Studies and the applicant. The application process generally takes four months to complete.

## APPENDIX E



### DEPARTMENT OF PHYSICAL THERAPY FACULTY OF MEDICINE, UNIVERSITY OF TORONTO

#### **Tenure Stream Associate Professor/Professor Exercise Physiology**

*The applicant for this position should hold a doctoral degree in exercise physiology (undergraduate physical therapy degree preferred), post doctoral training and a minimum of five years academic experience in a physical therapy or related program. We are interested in an individual with the ability to move the field of exercise physiology as it relates to physical therapy and rehabilitation forward. The individual requires excellent leadership and interpersonal skills as well as expertise in working with multi-disciplinary teams and community practitioners. The individual should have a keen understanding of the basic and applied aspects of exercise physiology as well as awareness of the current practice and research in the field and be able to identify future areas for research. Priority will be given to an individual with a substantive publication record in refereed journals, a productive research program supported by external funding and evidence of effective teaching. The successful candidate will be expected to teach exercise physiology in the professional physical therapy MScPT program. As well, the individual will teach in the graduate program and supervise graduate students in the MSc Program in Rehabilitation Science. A research focus is sought that is directed towards the application of exercise physiology to various patient populations.*

The University of Toronto is a major public research university and academic health science center that is affiliated with 9 teaching hospitals in Toronto, Canada, which provides a rich environment for collaborative research. The Department of Physical Therapy has adopted a musculoskeletal, neuroscience and cardiorespiratory research focus that emphasizes biomechanics, exercise and enhanced physical capacity and function and well-being for individuals with disease and disability. Research is approached from basic, applied and clinical approaches. We have state of the art research laboratory facilities in the areas of cardiopulmonary physiology, exercise physiology, neuroplasticity and rehabilitation, biomechanics and measurement of human movement. The department offers a MSc (PT) degrees the professional preparation in Physical Therapy. Faculty participate in an interdisciplinary MSc program in Rehabilitation Science and a PhD Program in the Institute of Medical Science.

Interested qualified individuals are requested to send in confidence a letter outlining their qualifications for the position including a curriculum vitae and three reference letters sent to:

Professor Molly Verrier, Chair  
Department of Physical Therapy  
Faculty of Medicine  
University of Toronto  
500 University Avenue, 8<sup>th</sup> Floor  
Toronto, Ontario  
M5G 1V7

e-mail: [pt.chair@utoronto.ca](mailto:pt.chair@utoronto.ca)  
Telephone: 416-978-5935

The University of Toronto is strongly committed to diversity within its community. The University especially welcomes applications from visible minority group members, women, Aboriginal persons, persons with disabilities and others who may contribute to the further diversification of ideas.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

## **Tenure Stream Assistant/Associate Professor Musculoskeletal Science**

*The applicant should have an undergraduate degree in physical therapy, a doctorate in a related field, post doctoral training (preferred), and a minimum of 3 years of academic experience in a physical therapy program. The individual should be able to demonstrate evidence of research and scholarly activities and effective teaching in the musculoskeletal area. We are interested in an individual with the ability to move the field of musculoskeletal physical therapy science forward. The individual requires excellent leadership and interpersonal skills as well as experience in working with multi disciplinary teams and community clinicians. The individual should have a keen understanding of the basic and applied aspects of the musculoskeletal area as well as awareness of current practice and research in the field and ability to identify future areas for physical therapy research. Priority will be given to individual with a promising publication record in refereed journals, evidence of a productive research program supported by external funding, effective teaching and clinical experience in musculoskeletal physical therapy. The successful candidate will be expected to teach in the areas of his/her expertise including the musculoskeletal course in the professional physical therapy program and to develop a research program in the musculoskeletal area. As well, the individual may teach at a graduate level and supervise graduate students in the MSc Program in Rehabilitation Science. A specific focus is sought in research that is directed towards the clinical application of musculoskeletal practice dedicated towards an understanding of the fundamental basis of practice, the methodologies for measurement and outcomes of practice for those with musculoskeletal injury disease or disability.*

The University of Toronto is a major public research university and academic health science center that is affiliated with 9 teaching hospitals in the Toronto area. Toronto provides a rich environment for collaborative research. The department has adopted a musculoskeletal research focus that emphasizes biomechanics, exercise and enhanced physical capacity for individuals with disease and disability. Research is approached from basic, applied and clinical approaches. We have active research laboratories in the areas of cardiopulmonary physiology, exercise physiology, electrotherapy, neuroplasticity and rehabilitation, biomechanics and measurement of human movement. The department offers a MScPT as the professional preparation in Physical Therapy. Faculty participate in an interdisciplinary MSc program in Rehabilitation Science and a PhD Program in the Institute of Medical Science.

Interested qualified individuals are requested to send in confidence a letter outlining their qualifications for the position including a curriculum vitae and three reference letters sent to:

Professor Molly Verrier, Chair  
Department of Physical Therapy  
Faculty of Medicine  
University of Toronto  
500 University Avenue, 8<sup>th</sup> Floor  
Toronto, Ontario  
M5G 1V7  
E-mail: [pt.chair@utoronto.ca](mailto:pt.chair@utoronto.ca)  
Tel: 416-978-5935

The University of Toronto is strongly committed to diversity within its community. The University especially welcomes applications from visible minority group members, women, Aboriginal persons, persons with disabilities and others who may contribute to the further diversification of ideas.

# APPENDIX F

## Responsibilities of the Graduate Student Supervisor

Extracted from GDRS Student Handbook

The student supervisor is the most influential person in the graduate student's program. The following summarizes the supervisor's responsibilities.

1. Direct the graduate program of the student, facilitating timely completion of research, thesis writing and defense.
2. Provide mentorship and serve as an academic role model.
3. Choose appropriate members for the Graduate Program Advisory Committee (PAC) and ensure, jointly with the student, that the ongoing supervision is appropriate and timely.
4. Ensure appropriate continuing supervision of the student during any leave of absence from the University (e.g., sabbatical).
5. Disclose to the student and the GDRS intention regarding funding.
6. Play a major role in obtaining funding for the student and assist in applications accordingly

The SGS has provided further guidelines in the form of a checklist for supervisors, students and departments, which each supervisor and student should address.

### **1. Direct the Graduate Program of the Student**

A successful match between supervisor and student is dependent on dual commitment. Although self-directed learning is emphasized, graduate students, particularly at the Master's level, may require considerable assistance in defining their research project. Each student enters her/his graduate program with a unique set of academic and personal skills. It is essential that the supervisor carefully and accurately assess the student's abilities and then provide specific guidance. The student must acquire methodological expertise and content knowledge necessary to successfully complete the research and thesis writing in a timely fashion. Agreement between supervisor and student about the specific research goals and engagement of the student in these studies must occur within the first six months of enrollment.

Generally, the most successful match occurs when the student's research is an integral (and funded) component of the supervisor's ongoing investigation. This does not prevent the creative input of the student, who should engage in the design and testing of new experimental hypotheses. The supervisor must have the content knowledge and expertise to ensure appropriate supervision.

Regular discussion between supervisor and student (e.g., weekly or biweekly) is essential to facilitate progress. In these meetings, the student should have an opportunity to review new data, plan further experiments, review material written by the student and discuss all aspects of the student's program, including course work. The supervisor should give the student opportunities to write scientific abstracts and manuscripts as first author, and to present her/his research locally to other faculty members and students, as well as scientific conferences.

### **2. Provide Mentorship and an Academic Role Model to the Student**

Students will look to the supervisor for guidance and support throughout their graduate program. Genuine interest and enthusiasm on the part of the supervisor, as well as thoughtful, critical appraisal, will be highly valued and appreciated. In particular, students will need the supervisor's time. Prompt turnaround of their written work, especially thesis drafts, is not only helpful in achieving timely completion, but also indicates to the students that their work is important.

### **3. Choose Appropriate Members for the Graduate Program Advisory Committee (PAC)**

At the time of admission, the student and her/his supervisor should discuss the membership of the PAC. This committee will usually be comprised of two or three (at most) individuals with appointments in the SGS. Their function is to provide expertise in areas relevant to the thesis topic, which is complementary to the supervisor's own interests.

Selection of members of the PAC should take place as early as possible following enrollment and a first meeting held with all members within the first six months. One member, in addition to the supervisor, should be from the GDRS. The others need not be members of the GDRS. Their function is to provide expertise in areas relevant to the thesis topic, which are complementary to the supervisor's own interest. An outline of the student's proposal, including proposed course work, should be presented at this meeting. A second meeting should take place near the end of the first year, at which time the student should present a review of the pertinent literature, an update on course completion, and an overview of the hypothesis and experimental approach to be undertaken. The student should be encouraged to meet informally with members of the PAC as often as necessary.

Formal meetings of the student, supervisor and committee must be held at least twice a year (in the spring and fall) for the purpose of reviewing the student's research proposal and monitoring progress. It is usual for students to pre-circulate a short report and to begin the meeting with an overview of her/his research (e.g., 15 to 20 minute oral presentation, augmented by overheads as appropriate). The PAC meeting forms should be picked up by the student from the GDRS office ahead of the meeting. The completed PAC meeting form should be sent by the student to the Chair of GDRS within two weeks of each meeting.

### **4. Ensure Appropriate Continuing Supervision of the Student During Any Leave of Absence from the University.**

Before a supervisor goes on any leave of absence, or sabbatical supervisory arrangements should be discussed with the student, the PAC and the Graduate Chair. A written notification to the Chair about these arrangements should be provided prior to the leave of absence.

### **5. Disclose to the Student and the GDRS, Intention Regarding Funding**

The basic policy of the GDRS is that full-time graduate students should have personal support throughout the duration of a normal graduate degree program. If such support is not derived from external fellowships or awards, then it is expected that the supervisor will make every effort to assist the student in acquiring support.

The broad spectrum of research and backgrounds of the GDRS students requires careful consideration of each student's funding needs prior to agreement between supervisor and student about commitment to each other for completion of the graduate program. All students are expected to apply to **all** agencies that provide personal awards relevant to their research. The supervisor, is to play a major role in obtaining funding for the student and assist in applications accordingly.

Both student and supervisor will benefit from a clear understanding of their roles in both seeking and maintaining student funding, and the implications of a student's decision to waive personal funding.

## APPENDIX G

February 17, 2003

### REPORT ON LIBRARY RESOURCES FOR THE PROPOSED PHD PROGRAMME IN REHABILITATION SCIENCE

#### BACKGROUND

The University of Toronto libraries provide a rich resource for the support of graduate study in the field of rehabilitation science. While there is a specific literature that focuses on rehabilitation science which we collect extensively, the research collection in this area is enhanced by its location in a university library system which through its collections and acquisitions policy supports research and teaching in all areas of the biological, health, physical, social and behavioural sciences and the humanities. The increasingly cross-disciplinary nature of much of the research in the health sciences means that it is extremely difficult to draw firm boundaries around an area or speciality. Researchers in rehabilitation science draw on literature that is more broadly based and diverse than in the past.

#### DESCRIPTION OF THE COLLECTION

##### Monographs

The Library's holdings in rehabilitation science specifically, and the health sciences more generally, have been built up in a systematic way since 1966 when Dealer Selection Orders were established and librarians employed to monitor the plans and to actively and systematically select research materials that fall outside the plans.

Rehabilitation science includes both the physical and psychosocial aspects of rehabilitation. Accordingly, research material supporting this program comes from a wide range of subject areas across the health sciences and the social sciences including: physical therapy, medicine, biomechanics, physiology, biophysics, biochemistry, molecular biology, psychiatry, psychology, sociology, occupational therapy, and social work.

In the health sciences and social sciences, as in other areas of the collection, it is the policy of the Library to acquire a single copy of all books published in English that are considered to be of research value. This includes the proceedings of conferences and symposia, technical handbooks and reference tools in addition to research monographs. The cross-disciplinary nature of research in rehabilitation science makes a simple evaluation of the Library's holdings difficult. However, use of the 2001 edition of the North American Title Count 1 can be useful in comparing the University of Toronto's

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26 *North American Title Count, 2001*. Chicago: American Library Association.

holdings with that of other similar institutions. Books relating to the health sciences fall within the Library of Congress classification range *R-RZ* and the National Library of Medicine classification *QS-ZWZ*. In a count of books in this call number range, the University of Toronto Library, with 120,580 titles, ranked seventh of the sixty-one North American libraries participating in the title count. It should be noted that two of the six libraries ranking ahead of the University of Toronto were the Library of Congress and the National Library of Medicine. Thus when compared to university libraries the University of Toronto Library ranks fourth of the sixty-one libraries reporting.

For books in the call number range: *H-HZ, Social Sciences*, the University of Toronto Library, with 407,355 titles, ranked seventh of the sixty-one libraries. When compared solely to academic libraries the University of Toronto would have the fifth largest collection of social sciences titles of the sixty-one libraries in the survey.

The currency of the collection is also important. There have been ongoing improvements in the library's ability to get English language materials to the shelves quickly, and at present there is not a backlog for books in the health sciences.

### Journals

The journal holdings of the University of Toronto Library are substantial. However, like all North American libraries we are experiencing great difficulty in keeping up with the rising cost of serial subscriptions. From 1986 until the past few years we were able to buy few new titles. During the 1990's the Library, in consultation with faculty, actually cancelled subscriptions equal in cost to approximately 10% of the total serials budget. However the situation has improved significantly during the past several years due to the Library's holdings of electronic journals. At the present time over 15,000 such journals are available to students and staff at the university. Many of these are new to the Library's holdings.

The total number of journal subscriptions currently held in the life and health sciences is 4,418.<sup>2</sup> This number would be increased by more than 750 titles if the annual reviews and numbered series which are acquired as monographs were included in the serials budget. A check of the ISI journal citation reports (2001)<sup>3</sup> (JCR) can provide some insight into the Library's holdings in the rehabilitation science. In the subject area Rehabilitation in the science edition of the JCR, the University of Toronto Library holds eighteen of the top twenty-five ranked journals. In the social sciences edition the Library has twenty-one of the top twenty-five journals in the area of Rehabilitation.

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<sup>2</sup> University of Toronto Library. Annual statistics, May 1, 1996 -- April 30, 1997. Toronto: The Library, 1997.

<sup>3</sup> *Science Citation Index Journal Citation Reports, 2001*. Philadelphia: Institute for Scientific Information, 2002.

## **Electronic Resources**

The electronic information services at the University of Toronto Library have been evolving since 1987, when the first online catalogue was mounted.<sup>4</sup> Within a year the online catalogue was available in all the campus libraries, and dial-in access was introduced with a small number of lines. Abstracts and indexes had been computerised since the early 1970's and up until the 1980's were searched by trained intermediaries. Beginning in the late 1980's CD-ROM's and networked databases widened the access of electronic databases to the end-user to perform his or her own searches. In 1991 the Library added seven H.W. Wilson periodical index databases to its electronic network. Today the Library offers over 350 periodical index databases through a variety of information systems to all members of the University of Toronto community. Some of these indexes allow users to search and retrieve citations to journal articles and then to display the full text of that article electronically. Specialists in rehabilitation science will find the following databases of interest: MEDLINE; CINAHL; HEALTHSTAR; EMBASE; SCIENCE CITATION INDEX; SOCIAL SCIENCE CITATION INDEX; PSYCHOLOGICAL ABSTRACTS; SOCIOLOGICAL ABSTRACTS; ISI CONFERENCE PROCEEDINGS; and PROQUEST DIGITAL DISSERTATIONS.

As mentioned earlier the Library also offers links to 15,000 electronic journals to the University of Toronto community via the Library's web pages. Some 60% of these journals have the full text of their articles available for viewing, printing, and in some cases emailing, by University of Toronto staff and students.

## **SUPPORTING COLLECTIONS**

Although the main rehabilitation science collections are housed in the Gerstein Science Information Centre and the Robarts Library, graduate students in rehabilitation science can also make use of the large collection of health and life science related journals housed in the libraries of the academic teaching hospitals. These libraries have combined with the University of Toronto Library to create the Health Science Information Consortium of Toronto. Comprising over 30 teaching and community hospitals and health institutions, the Consortium members cooperate to share resources and so expand the base of research support for their parent institutions.

The Government Publications Section of the Robarts Library, which is a depository library for Canadian federal, Ontario, United Nations and European Communities materials is another supporting collection for researchers in rehabilitation science.

## **REFERENCE SERVICES**

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<sup>4</sup> Clinton, Peter. From Felix to the digital library and beyond. UTLibrary news, winter 1997/98, p. 2-3.



Given the cross-disciplinary nature of much of the research in the health sciences, and the increasing importance of electronic resources, including the World Wide Web, it is important to recognise that the reference and instructional services offered by the Library play a key role both in making our own collections accessible and in facilitating access to the national and international information networks. The Library is increasingly playing an important role in the linking of teaching and research in the university.

References services offered at the Gerstein Science Information Centre include help in searching the collection, the verification of citations, training in the use of databases and electronic journals, the searching of online and print union list files to locate materials not available on campus, and the handling of interlibrary loans. For some locations, e.g. CISTI, it is now possible to process transactions electronically thereby decreasing the time required to fill requests.

## **BUDGET AND COMMITMENT**

The strength of the Library's financial commitment to purchasing material over the next five to seven years depends upon University policy and government funding. To date it has been the University of Toronto's stated policy to protect, as far as possible, the Library's acquisitions budget from rising costs and to maintain this protected status. This present financial policy allows the Library to maintain its current purchasing levels for publications relevant to rehabilitation science and ensures continued support for the programme.

Prepared by: Dan D'Agostino  
Life and Health Sciences Book Selector

Submitted by: Carole Moore  
Chief Librarian

## APPENDIX H

### PhD Admission and Program Requirements

Entry Degree	Admission Requirements	Program Requirements
<b>MScPT or MScOT</b>	A-	REH 1100H REH 1120H
		REH 3120H REH 3100H REH 3001Y REH 9999Y27
<b>MSc (Rehab Science)</b>	A-	REH 3120H REH 3100H REH 3001Y REH 9999Y
<b>MScPT/MSc (Joint Degree)</b>	A-	REH 3120H REH 3100H REH 3001Y REH 9999Y
<b>MSc</b> <i>Completed</i> <i>Non-rehabilitation background</i>	A-	REH 1100H REH 1120H REH 1130H REH 1140H
		REH 3120H REH 3100H REH 3001Y REH 9999Y
<b>MSc (Rehab Science)</b> <i>Incomplete</i> <i>Request to transfer to PhD</i>	A- (in MSc course work) REH 1100H REH 1120H Less than 18 months in MSc program Thesis proposal defended	REH 1XXXH 28
		REH 3120H REH 3100H REH 3001Y REH 9999Y
<b>Direct Entry</b> <i>For exceptional students only</i>	A+/A (GPA 4.0) Relevant research experience REH 1100H REH 1120H REH 1130H <b>or</b> REH 1140H <b>Plus</b> Qualifying examination within 18 months of admission to program	REH 3120H REH 3100H REH 3001Y REH 9999Y

27 Thesis

28 Field course requirement from MSc program

# APPENDIX I

Computer Resource Laboratory  
Room 444, Centre for Function and Well-Being

<b>Software Installed on All Systems</b>		
<b>Software Name</b>	<b>Type</b>	<b>Number of Licenses</b>
Stat32 2.0 Statisical Software	SigmaStat	6
Answer Tree 3.1	SPSS software	6
Sigma Plot 8.0	SPSS software	6
SPSS for windows 11.0	SPSS software	6
Sigma Stat 2.03	SPSS software	6
SPSS Data entry 3.0	SPSS software	6
Acrobat Reader 5.0	Creating/Reading PDF Files	1
End Notes	Bibliographies Made Easy	1
SAS System	SAS 8.02	6
IT service Vision	SAS 8.02	6
QSR NiVivo 2.0	NUD*IST	6
Netmeeting	Microsoft Office	ALL
Microsoft Excel	Microsoft Office	ALL
Microsoft Access	Microsoft Office	ALL
Microsoft Outlook	Microsoft Office	ALL
Microsoft Word	Microsoft Office	ALL
Microsoft Frontpage	Microsoft Office	ALL
Microsoft Powerpoint	Microsoft Office	ALL
Corel Photohouse/Print	Imaging software	ALL
Amos 4	Graphics Drawing Program	6
Emotion	Graphics Drawing Program	ALL
WS_FTP	File Transfer Program FTP	ALL
Quick Time	.avi Player	ALL
Windows Media Player	.avi Player	ALL
WebShop	Website design and FTP	ALL
HP Precision Scan	Scanning software	ALL
Caere	Scanner Software	ALL

**APPENDIX J**  
**Graduate Department of Rehabilitation Science**  
*Faculty of Medicine*  
*University of Toronto*

**COURSE DESCRIPTIONS**

**REH 1100H - Theory and Research in Rehabilitation Science**

**Instructor/Coordinator:** B. Kirsh

**Course Description**

This course will examine historical, current, and emerging theories and models in Rehabilitation. It will also employ a systematic approach to representative methodological issues and research areas in Rehabilitation while incorporating a focus on measurement theory and techniques.

**REH 1110H - Rehabilitation Services Research and Policy**

**Instructor/Coordinator:** S. Rappolt

**Course Description:**

This course enables rehabilitation science students to critically analyze the scientific and political forces that influence the delivery of rehabilitation services. Students' contributions to rehabilitation services research and policy will be facilitated through their development of grant proposals and position statements. The dimensions of the course include an analysis of the scientific and political bases of current rehabilitation policies, an introduction to rehabilitation services research methodologies, and an examination of the processes through which research may be translated into policy.

**REH 1120H - Research Methods for Rehabilitation Science**

**Instructor/Coordinator:** S. Jaglal

**Course Description:**

This course provides the theoretical basis and practical experience for measurement in rehabilitation research and health care. Students will be introduced to measurement theory, measurement models and methods for assessing the properties for assessing clinical phenomena and client performance as they apply to rehabilitation.

**REH1130H - Theory and Research in Occupational Science**

**Instructor/Coordinator:** H. Polatajko

**Course Description:**

This course focuses on human occupation and how best to understand it. In this seminar course, students will examine the phenomenon of occupation and the new emerging discipline of occupational science. Occupation and its enablement will be considered from a variety of perspectives ranging from positivistic to humanistic. The relationship between occupation, health, function and well-being will be explored, as will the various paradigms of inquiry that can inform our understanding of this important human phenomenon. The relevance of research in occupation to health professions, most particularly occupational therapy, will be discussed in relation to rehabilitation science.

### **REH 1140H - Theory and Research in Physical Therapy Science**

**Instructor/Coordinator:** C. Cott

#### **Course Description:**

This course will examine current and emerging theories, models and significant research advances in Physical Therapy Science that enhance function and well-being. The dimensions of the course will include a systematic analysis of the theoretical and scientific basis of physical therapy at both micro and macro levels.

The course will examine basic, applied and clinical physical therapy research directed towards the discovery of new knowledge, the evaluation of interventions and the translation of innovations into the field of rehabilitation science.

### **REH 1510H - Disordered and Restorative Motor Control**

**Instructor/Coordinator:** W. McIlroy

#### **Course Description:**

This course which will consist of seminars, tutorials and laboratories will focus on the physical assessment of the function/dysfunction of the neuromuscular system. Specific sensorimotor functions including reaching, upright posture, gait and lower extremity movement will be analyzed. The functions will be analyzed conceptually as to their importance for a healthy life style, measured using state of the art technology in select patient populations and compared to normative parameters in the current literature. Tutorials will focus on strategies to minimize physical dysfunction and optimize performance. Students will be responsible for preparing background material in seminars for each of the sensorimotor functions included in the course.

### **REH 1520H - Physiological Factors Constraining Rehabilitation in the Elderly**

**Instructor/Coordinator:** S. Thomas

#### **Course Description:**

This course will investigate the manner in which aging-associated changes in physiology influence physical capacity and the response to rehabilitation.

Emphasis will be placed on the relation between impairment and the strategies used to assess and reduce disability. Attention will be focused on neuromuscular and cardio respiratory function.

**REH 1540H - Research Topics in Assistive Technology**

**Instructor/Coordinator:** D. Reid; G. Fernie

**Course Description:**

The current issues and applications of technology relevant to rehabilitation specialists will be examined in this course. A framework for addressing technology will be developed from a variety of perspectives, including a parallel interventions model, as well as a social, psychological, and cultural perspective. Concepts such as high versus low technology, custom versus commercial technology, minimal versus maximal technology, appliance versus tool, and adaptive-assistive technology versus Rehabilitative-educational technology will be addressed. In addition, issues concerning service delivery, quality assurance, ethics and research methods for examining impact of technology will be examined.

**REH 1550H - Advanced Study of the Musculoskeletal Tissues for the Rehabilitation Specialist,**

**Instructor/Coordinator:** K. Lundon

**Course Description:**

This course is designed for the student who is interested in acquiring an in-depth understanding of the structure (ultrastructure- gross morphology) and functional behavior of specific connective tissues that comprise the musculoskeletal system. This material will specifically address how selected dense connective tissue properties are affected by injury and disease across the lifespan, and, in turn identify the implications of these cases for physical rehabilitation.

**REH 1610H - Environmental Theory in Rehabilitation**

**Instructor/Coordinator:** K. Boschen

**Course Description:**

The environmental context of impairment, disability, and handicap is an often-neglected area of study. Students in this course will examine theories of environmental press, environmental susceptibility, and environmental adaptation as they relate to the rehabilitation population. Concepts of effectiveness, competence, and control will be discussed as related to theories of adjustment to disability. The notion of a personal, a social, and a physical environment will be introduced, and environmental facilitators and barriers in each of the three realms

will be identified and examined. The contribution of rehabilitation technology and the provision of assistive devices to those with disabilities will be explored and analyzed from an environmental theoretical perspective.

**REH 1620H - Methodological Issues in Research on Aging and Health**

**Instructor/Coordinator:** A. Colantonio; C. Cott

**Course Description:**

This course will examine selected aspects of physical, psychological, and social on function/dysfunction in the elderly. For example, in exploring the social and sociopsychological aspects of the major life course transitions associated with the later years, the focus will be on processes of change and identification of typical patterns and problems that may arise both for the individuals experiencing age-related changes and for their families. Aging with a disability will be a topic of special interest.

**REH 1630H - Psychosocial Adaptation and Quality of Life Issues**

**Instructor/Coordinator:** R. Renwick; J. Friedland

**Course Description:**

This course will examine health and disability from the perspective of major theoretical frameworks (e.g. attribution, reasoned action, cognitive-behavioral, and psychosocial developmental theories) as well as relevant research. It will begin with a brief review and discussion of fundamental concepts such as mind-body relationships, health, wellness, prevention, health promotion, disability, and adaptation to disability. However, the emphasis will be on examining various psychological issues related to this area, for example, health beliefs and behaviours, lifestyle factors in health, quality of life, perceived control and learned helplessness, coping processes and strategies, disability and stigma, and social support.

**REH 1640H - Sociology of Disability**

**Instructor/Coordinator:** K. Yoshida

**Course Description:**

This half course will focus on the understanding of chronic illness and disability from relevant sociological perspectives and theories. Chronic illness will then be examined from a structural-functionalist orientation (E. Friedson's early work on deviance and labeling and T. Parson's sick role). Chronic illness will then be examined from a symbolic interactionist orientation (Goffman's work on stigma and Strauss and Glasser's early work on the management of chronic illness). We will also look at more recent works from American (Charmaz and Corbin & Strauss) and British researchers (Bury, Locker, Williams) who have looked at process (chronic illness experience) and/or structure (social, political forces

which shape illness experience) with respect to chronic illness and disability. This course will also look at various themes and issues within this area such as: uncertainty, biographical work, reconstitution of self, managing regiments, family relations, issues of disadvantages, careers or trajectories of illness and conceptual issues of disability and handicap. This course will consist of seminar presentations and guest speakers. Enrollment with permission of instructor. .

### **REH 2000H - Individual Reading and Research Course**

**Instructor/Coordinator:** D. Brooks

#### **Course Description:**

This course will critically evaluate the literature on the topic of study. Students will be required to conduct an in-depth literature review and analysis of the topic and prepare a major paper on the topic in the format ready for submission for publication in an appropriate journal. A faculty member with academic expertise in the topic will supervise the independent study.

### **REH 2001Y - Rehabilitation Presentations & Proceedings**

**Instructor/Coordinator:** K. Boschen

#### **Course Description:**

This course is intended to focus upon the oral reporting of each student's Master's thesis work. All students will be required to enroll in this course during two terms, and will present their work-in-progress at least once. The course is designed to enable students to: a) practice the presentations and critical thinking skills they will use in defending their completed thesis; b) convey to fellow students and graduate faculty the context of their thesis project; and c) engage their audience in scholarly discussion about their selected research topic.

### **REH 3100H – Advanced Rehabilitation Research Issues**

**Instructor/Coordinator:** M. Verrier

#### **Course Description:**

This senior level course is intended to provide the student with an in-depth review of issues in rehabilitation science such as economic models, Rasch analysis techniques, utility models, rehabilitation informatics, knowledge translation etc. Faculty from the PhD program will provide lead seminars in these topics.

### **REH 3120H – Advanced Research Methods**

**Instructor/Coordinator:** A. Davis

#### **Course Description:**



The course requirements will be fulfilled by enrolling in an advanced research course from other graduate units in the Faculty of Medicine, that complement the student's PhD thesis. The Departments of [Public Health Science](#)<sup>29</sup> and [Health Policy, Management and Evaluation](#)<sup>30</sup> have a series of advanced courses on offer.

**REH 3001Y\* – Advanced Rehabilitation Presentations & Proceedings**

**Instructor/Coordinator:**

**Course Description:** K. Boschen

PhD students will be required to conduct a written critical analysis of two seminars, for feedback by peers and/or the master's students, taking into account the current literature. The review will take the form of a grant review process to enhance skills for development of individuals who will serve on future grant review panels. (PhD students will attend for two years).

\* PhD component of REH2001Y (see Appendix J for 2003 seminar schedule).

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<sup>29</sup> <http://www.phs.utoronto.ca/>

<sup>30</sup> <http://www.utoronto.ca/hpme/>

## APPENDIX K

# Graduate Department of Rehabilitation Science

500 University Ave., Toronto, Ontario M5G 1V7 Telephone (416) 978-0300 Facsimile (416) 946-8762

## ANNUAL REPORT

Name of Student:		Signature:	
Date:	Degree:	Date commenced:	
Name of Supervisor(s):		Signature(s):	
Committee Member:		Signature:	
Committee Member:		Signature:	
<b>Courses Taken:</b>	<b>Title</b>	<b>Course Number</b>	<b>Grade (if available)</b>
<b>Financial/Funding Information:</b>	<b>Name (please indicate)</b>	<b>Amount</b>	
Ontario Graduate Scholarship		\$	
U of T Open Fellowship		\$	
Teaching Assistantship(s)		\$	
Other(s)		\$	

### Research and Committee Activities:

<b><i>Thesis Title/Topic:</i></b>	
<b>Date of Last Meeting:</b>	<b>Date of Thesis Defense:</b>
<b>Committee Comments</b> Π (below or attached)	

<b><i>Please attach the following items to this report:</i></b>	List of Scientific Meetings Attended List of Publications Research/Thesis Progress Report (1-2 pages) Award Notification Letters
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# APPENDIX L

## Graduate Department of Rehabilitation Science

### REH 2001H Rehabilitation Presentations and Proceedings

#### Seminar Schedule —2003

Date	Room	Presenter	Thesis Supervisor	Thesis Title
Jan 30th 4:10 pm	140	Jocelyn Carr	Dina Brooks	Early rehabilitation after COPD exacerbation
Jan. 30th 5:00 pm	140	Renu Gupta	Dina Brooks Roger Goldstein	Effects on Rollator use on activity levels, health-related QOL, and health profile in COPD
Feb. 6th 4:10 pm	140	Catherine Bradley	Nancy Young	Assessment and interpretation of age effects in pediatric health data
Feb 13 <sup>th</sup> 4:10 pm	140	Mika Nonoyama	Dina Brooks	Quality of life in patients with moderate exertional hypoxemia
Feb 13 <sup>th</sup> 5:00 pm	140	Diana Clarke	WORKSHOP	WRITING A RESEARCH PROPOSAL
<b>Feb. 20<sup>th</sup></b>	<b>All students encouraged to attend GTA Rehab Network Conference</b>			
Feb 27th 4:10 pm	140	Katherine Krpan	Deirdre Dawson Donald Stuss	Executive function and coping among TBI survivors
Feb 27th 5:00 pm	140	John Esposito	Scott Thomas	Effects of growth hormone treatment on cardiovascular function in adults with HIV-associated waste
Mar 6th 4:10 pm	140	Chris O'Brien	Aileen Davis	Evaluation of hand function in children with JRA
March 6th 5:00 pm	140	Cindy Ellerton	Dina Brooks Aileen Davis	Development of a pediatric cardiopulmonary discharge tool
<b>March 13th</b>	<b>MARCH BREAK *** CLASS CANCELLED</b>			
Mar 20th 4:10 pm	150	Mary-Catherine Fraser Saxena	Aileen Davis	Use of clinical practice guidelines among physiotherapists for knee OA
March 20th 5:00 pm	150	Gail Teachman	Jeff Jutai	Meaning and occupation re: written communication
March 27th 4:10 pm		Rebecca Gewurtz	Bonnie Kirsh	Attitudes, beliefs, and expectations towards the potential of people with a mental illness to engage in work: A proposal
<b>April 3rd</b>	<b>DR. BOSCHEN AWAY *** CLASS CANCELLED</b>			
Apr. 10 4:10 pm	140	Rosalyn Miller	Molly Verrier	FES and spinal cord injury: Peripheral and central effects
April 10 5:00 pm	140	Will Cachia	Dina Brooks	Cardiovascular endurance in the burn population
April 17th 4:10 pm	140	Mandy Lowe	Susan Rappolt	Role of systematic reflection in integrating research into clinical practice
Apr. 17th 5:00 pm	140	Noemi Cantin	Helene Polatajko	Adaptation of gaze-throw movement in children with DCD
April 24th 4:10 pm	140	Karen Fisher	Susan Rappolt	Perceived benefits of OHIP Schedule 5 PT services to Ont. long-term facilities
Apr. 24th 5:00 pm	140	Nicole Cooper	Karen Yoshida	Determinants of exercise and osteoporosis or women and disabilities





## Admission Requirements for the Master of Science degree in Rehabilitation Science

### Pre-requisites

Candidates for this degree must have graduated with an average of B+ in the final two years of a degree program from a recognized University, with a strong undergraduate science background, including a course in research design and/or statistics, and the equivalent of a four-year University of Toronto Bachelor of Science degree in occupational therapy, or physical therapy, or a related field. Related fields might include: nursing, psychology, sociology, social work, physical and health education, basic sciences, biomedical engineering, kinesiology, and others. Evidence of written and verbal proficiency in English for applicants whose first language is not English is required (minimum standards set by the School of Graduate Studies).

Once admitted to the program, additional courses may be required (e.g., in human biology, statistics, anatomy, physiology, psychology, sociology, neurophysiology and others), depending on the area of specialization of the graduate work, background preparation and time away from academic work.

### Application Procedure

The application is can be downloaded at the departmental website including all necessary forms.

You must send copies of your application to TWO different offices:

To the School of Graduate Studies (SGS) located at 63 St. George St. Toronto, Ontario, M5S 2Z9

Please send the following:

Copy of Application Form A

Non-refundable Application Fee\*

Form D if paying the Application Fee by Credit Card

\*Please refer to the Application Instruction Sheet, Section 34, for information on the Application Fee.

To the Graduate Department of Rehabilitation Science  
500 University Av., rm 160 Toronto, ON M5G 1V7

Please send the following:

Copy of Application Form A

Form B

Transcripts in sealed envelopes

Other documents listed below

Y Letter of Intent (form provided)

Y 2 Academic Letters of Recommendation (form provided)

Y Evidence of English Language Facility

Y Recent Curriculum Vitae

### Faculty

<b>Anne Agur, Ph.D.</b> <i>Musculoskeletal Rehabilitation</i>	(Medical Sciences)
<b>Badley, E., D.Phil.</b> <i>Epidemiology/Disability Studies</i>	(Chemistry),
<b>Beaton, D. E., Ph.D.</b> <i>Work &amp; Health</i>	(Medical Sciences)
<b>Boschen, K., Ph.D.</b> <i>Social Psychology/Rehabilitation Psychology</i>	(Psychology),
<b>Brooks, D., Ph.D.</b> <i>Physical Therapy/Cardiopulmonary</i>	(Medical Science),
<b>Chau, T., Ph.D.</b> <i>Rehabilitation Engineering</i>	(Systems Design Engineering),
<b>Colantonio, A., Ph.D.</b> <i>Occupational Therapy/Epidemiology</i>	(Epidemiology),
<b>Cott, C., Ph.D.</b> <i>Physical Therapy/Gerontology</i>	(Public Health Sciences),
<b>Davis, A., Ph.D.</b> <i>Clinical Epidemiology/Musculoskeletal Disability Measurement</i>	(Clinical Research),
<b>Dawson, D, Ph.D.</b> <i>Occupational Therapy</i>	(Psychology)
<b>Fernie, G., Ph.D.</b> <i>Rehabilitation Eng./Gerontechnology</i>	(BioEngineering),
<b>Frank, J, Ph.D.</b> <i>Population Health</i>	(Biological and Medical Sciences)
<b>Friedland, J., Ph.D.</b> <i>Occupational Therapy/Adjustment to Disability</i>	(Special Education),
<b>Goldstein, R., M.B., Ch.B.</b> <i>Respiratory Rehabilitation/Cardiopulmonary</i>	(Respiratory Medicine),
<b>Graveline, C. PhD.</b> <i>Paediatric Sensorimotor Outcomes</i>	(Medical Science),
<b>Green, R. PhD.</b> <i>NeuroPsychology</i>	(Neuropsychology),
<b>Jaglal, S., Ph.D.</b> <i>Physical Therapy/Osteoporosis</i>	(Epidemiology),
<b>Jutai, J., Ph.D.</b> <i>Assistive Technology/Psychosocial Aspects of Disability</i>	(Psychology),
<b>Lundon, K., Ph.D.</b> <i>Physical Therapy/Musculoskeletal Rehabilitation</i>	(Pathology),
<b>Kirsh, B., Ph.D.,</b> <i>Mental Health/ Work Integration/Community Support</i>	(Applied Psychology),
<b>McIlroy, W., Ph.D.</b> <i>Motor Control/Biomechanics</i>	(Neurophysiology),
<b>Milner, M., Ph.D.</b> <i>Rehabilitation Engineering</i>	(Electrical Engineering)
<b>Mustard, C., Sc. D.</b> <i>Work Environments, Labour Market Experiences &amp; Health</i>	(Public Health Sciences)
<b>Naumann, S., Ph.D.</b> <i>Rehabilitation Engineering</i>	(Electrical Engineering)
<b>Polatajko, H., PhD.</b> <i>Occupational Therapy</i>	(Educational Theory)
<b>Popovic, M., PhD.</b> <i>Biomedical Engineering</i>	(Mechanical Engineering)
<b>Rappolt, S., Ph.D.</b> <i>Knowledge Translation in Contexts of Practice</i>	(Public Health Sciences)
<b>Reid, D., Ph.D.</b> <i>Occupational Therapy/Childhood Disabilities/Assistive Tech.</i>	(Special Education)
<b>Renwick, R., Ph.D.</b> <i>Occupational Therapy/Health Psychology</i>	(Psychology)
<b>Rosenthal, C., Ph.D.</b> <i>Sociology of Aging and Women's Health</i>	(Sociology)
<b>Roy, E., Ph.D. C.Psych</b> <i>Neuropsychology/Cognitive Motor Control</i>	(Psychology)
<b>Shein, F., Ph.D.</b> <i>Rehabilitation Engineering</i>	(Human Factors)
<b>Streiner, D., Ph.D., C.Psych</b> <i>Psychology/Epidemiology</i>	(Clinical Psychology)
<b>Stuss, D., Ph.D.</b> <i>Neuropsychology/Gerontology/Cognitive Rehabilitation</i>	(Psychology)
<b>Teare, G., Ph.D.</b> <i>Health Sciences</i>	(Epidemiology)
<b>Thomas, S., Ph.D.</b> <i>Exercise Physiology/Adaptation to Exercise</i>	(Exercise Physiology)
<b>Verrier, M., M.H.Sc.</b> <i>Physical Therapy/Restorative Motor Control</i>	(Clinical Neuroscience),
<b>Walker, J., Ph.D.</b> <i>Neurotrauma Epidemiology/Rehabilitation Utilization</i>	(Public health Sciences),
<b>Yoshida, K., Ph.D.</b> <i>Physical Therapy/Disability Studies</i>	(Public Health Sciences),
<b>Young, N., Ph.D.</b> <i>Clinical Health/Measurement/Transitions in Health</i>	(Clinical Epidemiology),



Rehabilitation Sciences Building  
Centre for Function and Well-Being

Chair: Prof. Molly Verrier

Graduate Coordinator: Dr. Angela Colantonio

[www.utoronto.ca/gdrs](http://www.utoronto.ca/gdrs)

GRADUATE DEPARTMENT  
OF  
REHABILITATION SCIENCE

2003-2004

## Deadlines for Receipt of Applications

### **M.Sc. Applications for September 2004 program:**

**Feb. 1st, 2004** from Canada and the U.S.A.;

**Jan. 15th, 2004** from other countries.

### **M.Sc. Applications for January 2004 program:**

**Sept. 30th, 2003** from Canada and the U.S.A.;

**Aug. 31st, 2003** from other countries.

## Overview

Rehabilitation Science is the systematic study of the physical and psychosocial dimensions of human function throughout the lifespan of individuals with impairments, disabilities and/or handicaps. The M.Sc. in Rehabilitation Science is a thesis program, *not* a professional program leading to a professional practice licence. The program includes a core course in Rehabilitation Science Theory and Research. Eleven additional courses, three in the field of Physical Rehabilitation and four in the field of Psychosocial Rehabilitation, are also offered. The program is designed to maximize the exceptional resources available within the University of Toronto health science complex. The program will enhance the growing research activity in the area of Rehabilitation Science and prepare students for further graduate study.

## Degree

M.Sc.—The Graduate Department of Rehabilitation Science offers programs leading to the M.Sc. degree. Students may in some cases also participate in the Collaborative Program in Neuroscience, the Collaborative Program in the Institute for Human Development, Life Course and Aging, the Collaborative Program in the Institute of Biomaterials & Biomedical Engineering or the Cardiovascular Sciences Collaborative Program.

## Program Requirements

The M.Sc. program in Rehabilitation Science includes both course work and a thesis. Minimum requirements currently include REH 1100H (Theory and Research in Rehabilitation Science), REH 2001Y (Rehabilitation Presentations), one half course in Research Methodology appropriate to thesis design, and at least one additional half course related to the field of study. Candidates must submit a thesis on their research and be examined by the Thesis Committee.

The program requires a minimum of 12 months of full-time study. Candidates should be aware that the completion of

the thesis may take longer. Exceptional students may be considered for enrolment in a part-time program. There will be no residency requirement for part-time students. They must complete the program within five years, however, all course work must be completed within the *first two years* of the program.. Part-time students must agree to an annual *Learning Contract* and must submit a *Program Map* (planned with his/her Supervisor) to the Department. Part-time students should be aware that it is the student's responsibility to modify her/his schedule to accommodate required course work as course times are not flexible.

## Fields of Study

**Physical Rehabilitation** is concerned with the optimization of physical function for individuals affected by diseases that can cause impairments, disabilities and handicaps. Optimal strategies for adaptation of human biological systems are developed by applying the basic sciences of biomechanics and engineering, physiology, biophysics, biochemistry and molecular biology to rehabilitation. The physical rehabilitation graduate program will aim to advance the scientific basis of rehabilitation in the areas of sensorimotor, neuromuscular, musculoskeletal, and cardiorespiratory function and dysfunction.

**Psychosocial Rehabilitation** is based on the behavioural, social, and clinical sciences and is concerned with the processes involved in coping, adjustment, and adaptation to disability. The overall goal in psychosocial rehabilitation is to decrease the impact of disability, to minimize handicap, and to increase quality of life. This perspective encompasses prevention at all levels and includes the promotion of health and well-being. Psychosocial rehabilitation is recognized as occurring within a socio-cultural context and intervention focuses, not only on the individual, but also on his or her social and physical environments. There is an emphasis on facilitating the continuum of community living, including integration, maintenance, and re-integration.

## Financial Support

Students are eligible for the University of Toronto Open Fellowships in accordance with the regulations of the School of Graduate Studies. Supervising professors may be able to provide funds from research grants to support students as research assistants. Teaching assistantships (10 hours per week) are also available for those who qualify. In addition, students are urged to apply for an Ontario Graduate Scholarship, and to consider applications to scholarships from national and international granting agencies.

Instructor(s)	
M. Verrier, B. Kirsh	Research in Rehabilitation
S. Rappolt	Services Research and Policy
S. Jagal	Fields of Rehabilitation Science
W. Milroy, M. Verrier	Restorative Motor Control
S. Thomas	Factors Constraining Rehabilitation of the Elderly
D. Reid, G. Fernie	Technology
K. Lundon	Study of the Musculoskeletal Tissue for the Specialist
K. Boschen	Theory in Rehabilitation
C. Cott	Issues in Research on Aging and Health
R. Renwick, J. Friedland	Adaptation and Quality of Life Issues
K. Yoshida	Disability
Course Coordinator: D. Brooks	Teaching and Research Course
K. Boschen	Presentations
	each academic year.

## Enquiries

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<http://www.utoronto.ca/gdrs>