

**Academic Program Review
Self-Study Report**

**School of Human Kinetics and Recreation
Memorial University of Newfoundland**

Submitted by: School of Human Kinetics and Recreation
May 12, 2006

1.0 INTRODUCTION	1
1.1 The School and Self-Study Report	
1.2 School History	
1.3 The School Today: A Model	
2.0 UNDERGRADUATE PROGRAM.....	4
2.1 Overview	
2.2 Undergraduate Degree Statistics	
2.3 Challenges	
2.3.1 Challenges - Recreation	
2.3.2 Challenges - Physical Education	
2.3.3 Challenges - Kinesiology	
2.4 Future Directions	
2.4.1 Future Directions - Recreation	
2.4.2 Future Directions - Physical Education	
2.4.3 Future Directions - Kinesiology	
2.5 Co-operative Education Division	
2.5.1 Overview	
2.5.2 Co-operative Education: Added Value	
2.5.3 Challenges	
2.5.4 Future Directions	
3.0 GRADUATE PROGRAM.....	8
3.1 Overview	
3.2 Graduate Student Statistics	
3.3 Challenges	
3.4 Student Authored or Co-Authored Publications	
3.5 Future Directions	
4.0 COMMUNITY SERVICE.....	20
4.1 Overview	
4.2 Invited Presentations	
4.3 Radio and Newspaper Interviews	
4.4 Reviewers	
4.5 Editorial Boards	
4.6 National and Provincial Services and Committees	
4.7 Local Community Services and Activities	
4.8 Challenges	

5.0 FACILITIES AND EQUIPMENT.....23

- 5.1 Overview
- 5.2 Building Use and Management
- 5.3 Future Directions

6.0 RESEARCH AND SCHOLARLY ACTIVITIES.....26

- 6.1 Overview
- 6.2 Publication History
- 6.3 Membership in Professional Societies
- 6.4 Time Devoted to Research Activities
- 6.5 Funding Opportunities
- 6.6 Collaborative Research Opportunities
- 6.7 Future Direction

7.0 CONCLUSIONS.....29

Appendix 1 - Student's Comment on Work Term Experience

Appendix 2 - List of Current Faculty and Credentials

1.0 INTRODUCTION

1.1 The School and Self-Study Report

The School of Human Kinetics and Recreation is a dynamic and growing organization that is constantly evolving to ensure quality and remain current in its disciplines. The School offers exciting programs in research, teaching, scholarship, and creative activities.

The School of Human Kinetics and Recreation offers undergraduate and graduate degrees in Kinesiology, Physical Education, and Recreation. The School's programs prepare students to meet societal needs for professionals who are able to initiate and manage health and lifestyle-enhancing programs. The School encourages a close working relationship among students, faculty, and staff, and with local and national sport, health, and professional organizations. Co-operative education programs provide for the integration of academic and professional knowledge. A full-time academic student advisor within the School assists students with decisions related to their academic program. The School prides itself on the extent to which senior undergraduate and graduate students are engaged in teaching, research, and scholarly activity. Many graduates of the School are leaders in the fields of physical education, sport, kinesiology, health, and recreation.

For the School of Human Kinetics and Recreation ("the School") the timing of this review is very positive. The University is in the midst of a strategic planning process, the School has a newly appointed Director, there has been an investment made in Varsity Athletics (review report provided: "*Now is the Time*") that includes the creation and approval of a new position - Director of Athletics (appointment late Spring 2006).

Preparation of this Self-study Report has provided the School as opportunity, as a group, to reflect on where we have come from, celebrate advances, and at the same time question such things as our identity, how we complement other units, the community and beyond, and lastly forecast into the future.

The self-study report began as draft sections prepared by various sub-committees comprised of faculty members. The document was reviewed, refined, and finalized by faculty. It is organized into five major sections dealing with our undergraduate program (includes co-operative education), graduate program, research, community service, facilities and equipment.

The School is proud of its accomplishments to date and is looking forward to the outcome of the unit review to guide future direction.

1.2 School History

From 1956, study in Physical Education (recreation and sport) consisted of a two-year diploma program. When the present St. John's campus opened in 1961, the degree program, which was primarily teacher preparation, was approved and the first degree (Bachelor of Physical Education) conferred in Spring 1964. The graduate program was developed and approved and the first Master of Physical Education degree was awarded in 1975. In the fall of 1976 the unit was designated a Professional School. In 1992, the Co-operative Education Model was

introduced into the School. The Recreation (Co-op) degree was added in 1997, and the Kinesiology (Co-op) degree in 1999. These were followed by the addition of non-co-operative degrees in Recreation (2000), Kinesiology (2001), and Physical Education (2002). This provides various options and opportunities for students based on their needs and interests.

The School also underwent a number of name changes. In 1998, there was a name change from the School of Physical Education and Athletics to Physical Education, Recreation and Athletics. There was a further change in 2001 to the present name of the School of Human Kinetics and Recreation. Throughout its evolution, student undergraduate enrollment has gone from approximately 25 to 282 students admitted in Fall 2005 (see additional statistics in the undergraduate section 2.2). In the graduate program, there are presently 39 students, whereas in the year 2000, there were nine students (see additional statistics in the graduate program section 3.3).

Despite advances and growth in the School, and an increased emphasis on research and publication, the faculty complement has not changed significantly. In 1991 for example, there were 14 full time faculty members whereas today there are 15 (plus the Manager and Coordinator of Cooperative Education). As a result, in the past decade, per-course instructors, including graduate students, have been required.

The School of Human Kinetics and Recreation 'today' is illustrated in section 1.3. This illustration includes the vision, mission, undergraduate studies, graduate studies, cooperative education, and the division of varsity athletics. The 'rings' that support the academic and varsity programs include a director, administrative and technical support, community advancement, research, scholarship and creative activities.

1.3 The School Today

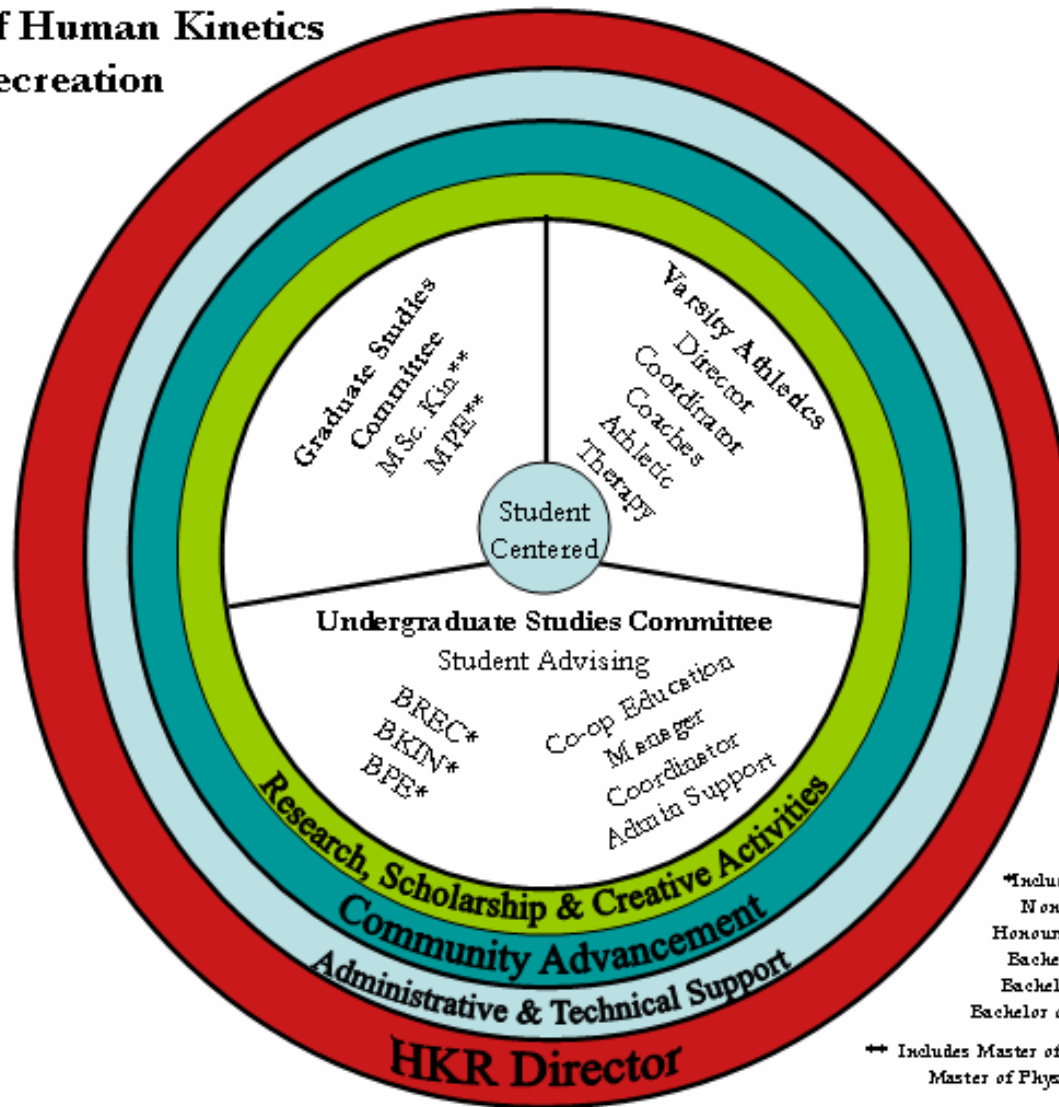
The School of Human Kinetics & Recreation

VISION

To be the School of choice for Human Kinetics and Recreation.

MISSION

The School of Human Kinetics and Recreation prides itself in a student centered, experiential approach to teaching, research, community advancement, and varsity athletics. We are dedicated to promoting the health and wellness of the citizens of Newfoundland/Labrador and beyond, through our Kinesiology, Physical Education and Recreation undergraduate, cooperative education, and graduate programs. We are committed to growth and sustainability through strategic planning, ongoing reviews, and collaboration with other units. As a smaller School with a sense of community, we have the distinct advantage of ensuring standards are maintained, and future leaders are provided the student advising they deserve.



2.0 UNDERGRADUATE PROGRAM

2.1 Overview

The undergraduate program in the School of Human Kinetics and Recreation provides unique degree options for students. Degrees are granted in co-operative, non co-operative, and honors, in Physical Education, Recreation, and Kinesiology. The program is student centered and has at its core an experiential approach to teaching, research, and community advancement.

2.2 Undergraduate Degree Statistics

Undergraduate Enrolment

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
SCHOOL OF HUMAN KINETICS AND RECREATION	159	197	215	272	281	281	311	276	288	282

Convocation

BPE (Hons.) (Co-op)						2	0	0	1	1
BPE (Hons.)						0	0	2	2	5
BPE (Co-op)						25	5	16	10	3
BPE						0	1	6	10	15
BKin (Hons.) (Co-op)						0	11	13	9	4
BKin (Hons.)						0	8	15	8	17
BKin (Co-op)						8	7	5	2	6
BKin						6	3	5	12	12
BRec (Hons.) (Co-op)						1	0	0	1	0
BRec (Hons.)						2	0	0	2	2
BRec (Co-op)						28	12	5	3	5
Brec						6	14	17	14	6

Kin introduced Fall 1999
 BPE introduced Fall 2002
 Rec (TR) introduced Fall 2006

NOTE: TR – Therapeutic Recreation

2.3 Challenges - Generally

The main challenges are space and faculty/staff complement. There has been a dramatic increase in the number of applicants to the School of Human Kinetics and Recreation. Consequently the quality of the applicants, in terms of their academic ability, has increased. Discussions have taken place as to the appropriate number of students in the School (and specific to each area: Physical Education, Recreation, Kinesiology). The school is stretched in terms of its resources (human, financial, facilities/equipment) and we are rejecting good quality applicants. Students are admitted according to a cumulative average from high school or first year university. The admissions committee is currently considering if there is merit in interviewing new applicants.

A general challenge involves timetable difficulties, similar to other schools/faculties on campus. For example physical Education students who wish to minor in areas such as biology and geography, have difficulty in getting the appropriate courses in a timely fashion.

Challenges will now be discussed specific to an area (Recreation, Physical Education, Kinesiology).

2.3.1 Challenges -Recreation

The Bachelor of Recreation has recently undergone a program review and a number of changes were made to the program based on the recommendations of the Review Committee. As a result of these changes, the major challenge facing the Recreation Program is related to implementation. The students admitted for fall, 2006 will be the first students admitted under the new regulations. This will have implications for some undergraduate courses as well as the co-op program.

2.3.2 Challenges - Physical Education

A challenge is to resolve issues created by the addition of the non-cooperative education option (bachelor of physical education degree). This has resulted in students admitted into one program, 'switching' to the non-cooperative education option, and vice versa.

2.3.3 Challenges - Kinesiology

The Kinesiology faculty and students are satisfied with the present Kinesiology Program, and report that significant changes to the Kinesiology program are not necessary. The issues for Kinesiology are associated with large classes, laboratory space, and resources. These concerns are expressed elsewhere in this report.

2.4 Future Direction

The admissions process needs to be reviewed in light of the number and quality of applications and our ability to deliver programs given the resource issues that exist in the School.

Future directions in specific areas of Recreation, Physical Education, and Kinesiology will follow.

2.4.1 Future Direction - Recreation

Given the Recreation program has just been reviewed and revised, it is anticipated that the new program will meet the needs and interests of students. The therapeutic recreation (TR) component has just been added and it is expected that we will continue to develop this element of the degree. The ideal would be for graduates to qualify for 'certification' as a TR specialist. Future directions will depend on an evaluation of the new program as students move through the program.

2.4.2 Future Direction - Physical Education

There is an ongoing need to evaluate how we can best prepare physical education graduates in the broadest sense. Can we improve on what we already do well? Can we give students more practical experiences in schools with school aged students? Can students be supported by the School faculty members in their internship and gain from the co-op experience if the work term is not in a school setting?

2.4.3 Future Direction - Kinesiology

There is need to continue to monitor professional schools (e.g., medicine, physiotherapy) to ensure that our graduates have the appropriate prerequisites for continued education. Otherwise, no substantial changes are envisioned for the Kinesiology degree except those concerns common to the other degree programs. Minor changes to electives may be required.

2.5 Co-operative Education Division

2.5.1 Overview

The School of Human Kinetics and Recreation's Co-operative Education program is the third largest at Memorial University, following the Faculties of Engineering and Business. The School has been providing co-operative education degree programs to students for the past 14 years.

Beginning in 1992 the original Bachelor of Physical Education degree became a co-operative degree program with an annual intake of approximately 40 students. Since then the School has grown from offering one degree to current day where we offer six undergraduate degree programs. In the fall of 1997 the Bachelor of Recreation Co-op degree and then in 1999 the Bachelor of Kinesiology Co-op degree were added. The non co-op degrees soon followed, resulting in six undergraduate offerings.

Our Co-op programs are well integrated within the School, and are a fundamental part of the School identity. As academic staff members, Co-operative Education Coordinators work very

closely with Faculty. This includes sitting on committees within the School including the Undergraduate Studies Committee and Academic Council, teaching professional development seminars (HKR 1123) to prepare students for the work term process, and grading students on work term. Co-operative Education Coordinators are responsible for all aspects of the operations of the work term component of the degree programs. The Co-op unit is staffed by a Program Manager/Coordinator, a second Coordinator, and one support staff.

2.5.2 Co-operative Education: Added Value

The co-operative education degree programs in the School of Human Kinetics and Recreation add value to the education our students receive. As part of their degree requirements Co-op students must complete three work term placements in order to graduate. Along with the work experience come the added advantages of a smaller debt load at graduation, quicker entry into the labor force at higher salaries, a focused career direction at graduation and additional professional skills. In turn, the School has the advantage of forging a direct connection to the community, from the business and public sectors to non-profit agencies. Co-op students have the opportunity to share their experiences on their return from senior work terms, and delivering presentations to their peers in academic classroom settings. These work related presentations provide opportunities for discussion and bridge the gap from the academic to work environment.

Students returning from each work placement attend debriefing sessions. These sessions provide the opportunity to reflect on their work experience and share feedback on their work placement. Overwhelmingly students report positively, citing the many benefits of their co-op program. Section 2.5.4 includes a sampling of student comments taken from debriefing documents from their co-op work term experiences.

2.5.3 Challenges

One of the main challenges for the School of Human Kinetics and Recreation Co-op has been to maintain a consistent and stable program in the face of considerable growth and change in both the internal and external environments.

Internally, the School has expanded considerably since 1992. This has required flexibility on behalf of the Co-op Office and the School in working within administrative policies and procedures that have not always kept pace with academic changes. A concern has been with the number of students switching in and out of the Physical Education Co-op degree since the introduction of the non-co-operative degree option in 2002 (this example was cited in section 2.3.2). This allows students to graduate a full year earlier than the co-operative program. At the same time the sequence of work terms in the co-op degree was changed from spring/winter/fall to three spring semesters only. More work needs to be done to more clearly identify the reasons students are changing programs and how these changes can be managed more effectively to maintain optimal program quality.

With its recently created non co-op options, Human Kinetics and Recreation now differs from Memorial's two other principal co-op programs, Business and Engineering, both of which clearly

signal Co-op as the central degree option. Human Kinetics and Recreation has the additional challenge of ensuring that students and new faculty are aware of and understand the benefits of co-operative education, in addition to its history and place within the School. A recent review of the Recreation degree program has positioned Co-op as the only degree option for applicants without significant work experience. Additional work is required to examine and potentially re-position co-op within the Physical Education and Kinesiology degrees, and within the School.

Externally, competition for employers throughout Canada consistently increases as more institutions embrace the benefits of experiential learning and offer co-op and internship programs. Human Kinetics and Recreation Co-op, like its Memorial siblings Business and Engineering, has had to work harder and more creatively to identify employers and secure work placements.

Locally, the Co-op office has identified the not-for-profit sector as a source of meaningful work term experiences. However, unlike the small business sector, which receives funding from the provincial government to subsidize wages to hire a Co-op student, the not-for-profit sector does not. Securing funding for this sector will allow us to partner with employers that frequently have a need for a work term student. Despite the challenges, the Human Kinetics and Recreation Co-op office maintains a student placement rate of 100%.

2.5.4 Future Directions

With Memorial's renewed commitment to co-operative education evidenced by the recently created academic Division of Co-operative Education and appointment of a Director, the future will bring many challenges and opportunities for the School's Co-op office. Our expertise and experience will be valuable in assisting other Faculties who wish to establish co-op options. While it will be important to contribute to the greater co-operative education community at Memorial, it will be equally as important to remain fully integrated into the School, retain our student centered approach, seek accreditation for our programs, establish consistent policies, procedures and formats for our degrees and to promote to the external community not only co-operative education, but also the School and ultimately Memorial University

3.0 GRADUATE PROGRAM

3.1 Overview

The Master of Physical Education (Administration, Curriculum and Supervision in Physical Education) (MPE) was approved by the University Senate on February 13, 1973, with the first degree conferred in the fall of 1975. The major intent was to provide a service to physical education teachers already in the field, to upgrade their academic skills. Therefore, many of the graduate students were part-time with many courses held in the evenings to accommodate the working schedules of the teachers. Presently, there are still a substantial number of MPE students who are part-time students and full-time teachers. The Table 1 illustrates that since

1981 (start of the Banner computer database system), 44% of our graduates have been or gone on to become teachers.

With the increased hiring of research-oriented exercise science professors (1995 onwards), there was a greater demand for physical education and kinesiology students who wished to obtain advanced degrees in the area of exercise science. Under the auspices of an MPE, students were given greater liberty in their course selection to better reflect their exercise science interests. Graduate courses were developed in exercise physiology, biomechanics, and sport psychology to replace the formerly obligatory courses in curriculum, leadership, and supervision. However, since the MPE designation did not reflect the nature of the exercise science courses and thesis work, it was endeavored to formalize a Master of Science in Kinesiology that would indicate to others within and outside the University the true nature of the program. Thus the MSc (Kinesiology) degree was first granted in the Spring of 2005.

3.2 Graduate Degree Statistics

*A number of students waited to graduate until MSc was granted

Table 1

	1980 - 0	1990 - 2	2000 - 2
	1981 - 3	1991 - 0	2001 - 1
	1982 - 3	1992 - 2	2002 - 2
	1983 - 3	1993 - 0	2003 - 5
	1984 - 2	1994 - 3	2004 - 4
1975 - 1	1985 - 2	1995 - 7	2005 - 15*
1976 - 2	1986 - 4	1996 - 4	
1977 - 5	1987 - 4	1997 - 3	
1978 - 1	1988 - 2	1998 - 2	
1979 - 5	1989 - 4	1999 - 1	
1970s - 14	1980s - 27	1990s - 24	2000s - 29

Grand Total	94 (87 MPE; 7 MSc Kinesiology)
Average Duration for Graduation	34.3 months (data based on 1995-2005)
Active Graduate Students Fall 2005	36 students (21 MPE; 15 MSc Kinesiology)
Out of Province Active Grad Students	7 students (19.4%)

Present Professions (data from 1980 - present graduates)

University Professors:	7 (9%)	Lawyer:	1
Doctoral students:	7 (9%)	Research Assistant:	1
School Principals:	4 (5%)	Engineer:	1
Teachers:	35 (44%)	Coach:	1
Administration:	9 (11%)	Social worker	1
Physiotherapy or Occupational Therapy	5 (6%)	RCMP	1
Tourism	1 (1.25%)	Unknown	5

3.3 Challenges

Graduate Student Office Space has been an ongoing concern with the significant increase in graduate students in the mid-late 1990s. Renovations to the old dance studio will result in a final home for graduate students with 30 separate work stations equipped for computers. Due to lack of space or, convenience some graduate students utilize research lab spaces. The new space, designated as graduate student offices should provide adequate room for all full time graduate students.

Laboratory space has also always been at a premium. A major concern is that research oriented laboratory space must also be used for teaching laboratories. This presents problems due to a lack of space for the typically 20 or more undergraduate students involved in a particular laboratory. Secondly, equipment and supplies purchased with research money continually contributes to the teaching laboratories. The School has provided some funding in this area but ideally separate facilities and equipment should be provided for the more robust and less delicate teaching labs, as opposed to the very precise needs of the research experiments.

Instructor workload is an issue that impacts all aspects of the School and the faculty members' personal pursuit of publication, tenure and promotion. The School of Human Kinetics and Recreation faculty complement are expected to teach six three credit courses per year, while maintaining their research output and community service. This teaching load is higher than a number of other faculties. This load was based on the historical context that in a professional school less or no research was conducted by faculty members. However, this assumption is no longer correct as more research oriented professors were hired over the last decade. The pursuit

of tenure and promotion places a heavy emphasis on research production, which is obviously difficult if more than the average undergraduate courses must be taught in conjunction with the teaching and supervision of graduate students.

Graduate Student Supervision

Dates indicate start of program.

This is a sample of graduate supervision, the list may be incomplete due to a lack of full historical information.

Dr. Behm

1995/96: Robert Fogarty

1997/98: Robert Kelland, Corey Pritchett

1998/99: Kellie Baker

1999-2001: Eric Drinkwater

2000/01: Kenneth Anderson, Steven Curnew, Mark Pitcher

2001/02: Kevin Power, Duane Button, Michael Collins, Jeremy Butt

2002/03: Michael Wahl, Adrienne Mercer, Nicole Hamlyn

2003/04: Nicole Dinn, Michael Samson, Allison Haynes, Crystal Kean, Ryan Sparkes

2004/2005: Brian Dalton

2005/2006: Kevin Parfrey, Deanne Smith, Natasha Paddock

Dr. MacKinnon

2003/04: Michael Holmes, Joanne Hodder, Lise Petrie, Erin Bradbury, Diane Durnford (Engineering), Julie Matthews (Kinesiology at UNB)

2004/05: Danika Drover, Xia Liu

2005/06: David Antle

Dr. Basset

2003/04: Sylvie Fortier

2005/06: Grant Handrigan, Geoff Power

Dr. Kavanagh

1994/95: Francesca Johnson, Sharon Jollimore

1996/97: Jeffery Mitchell

1998/99: Gary Corbett

1999/2000: Gena Bugden

2000/01: Melanie Hiscock, Sara Trew

2001/02: Carolyn Cooke

2002/03: Erin McGowan, Toby Colombe, Jason Desai

2004/05: Joan Robertson

2005/06: Blayre Martin

Dr. Higgs

1999/00: Dean Hay

2000/01: Catherine Lair

2002/03: Michelle Healey, Craig Cameron
2003/04: Christopher Huggan
2004/05: Carla Thachuk, Sharon Brophy

Dr. Loeffler

1998/99: LeAnne Petherick
2002/03: Ian Fong (co-supervisor Dr. Card)
2004/05: Katherine Baker
2005/06: Earl Walker, Natelle Tulk

Dr. Rohr

2004/05: Donna Gibbons
2005/06: Jason Reynolds

Dr. Sullivan

2003/04: Patrick Reddick
2005/06: Danielle LeDrew

Dr. Kuester

2002/03: Ann Mack, Lorne Morgan

Dr. Wheeler

2002/03: Anthony Flood
2004/05: Robert Basha, Paul and Zoe Hamilton

Dr. White

2000/01: Ajay Sanchetti
2001/02: Michael Powell, Julia Jennings, Elena Alexandrou, Amanda Hall
2002/03: Jonathon Power, Des Martin

Graduate student teaching has provided both advantages and disadvantages to the School and the graduate students. The teaching load handled by graduate students, due to either an insufficient number of faculty members or course load of six, has provided graduate students with valuable teaching experiences that have enhanced their skills and enriched their curriculum vitae. Conversely, undergraduate students are concerned that they are not being taught by fully qualified (i.e. PhD or similar experience) instructors. Whereas most of our graduate students have received stellar student evaluations, it is true that they do not always have the background of a tenured or a tenure track professor.

Graduate Student Teaching

Student	Years	# of courses	HKR Courses Taught
Nicole Dinn	2003-05	10	1000, 1001
Duane Button	2001-03	8	1001, 2310, 3300, 3330, 4210
Michael Samson	2004-05	8	1001, 4320
Ken Anderson	1999-02	7	1000, 1001, 2310, 3330, 4600
Kevin Power	2001-03	6	2310, 3310, 3320, 4320
Erin McGowan	2003-05	6	2004, 4330
Sylvie Fortier	2004-05	4	1001
Michael Holmes	2003-05	4	2703, 4210, 4703
Anthony Flood	2003-05	3	2000, 2001
Chris Huggan	2003-05	3	2001, 3220, 3330
Joan Robertson	2003-04	3	2004
Ajay Sanchetti	2001-02	3	2320, 3320
Sara Trew	2001-02	3	2000, 3110
Dean Hay	2000-01	2	2100, 4585
Mark Pitcher	2001-02	2	2703, 4703
Michael Powell	2002-03	2	2320, 4720
Erin Bradbury	2003-05	1	4703
Sharon Brophy	2003-05	1	3220
Steven Curnew	1999-00	1	3310
Brian Dalton	2004-05	1	3330
Crystal Kean	2003-05	1	4210
Brad Maher	2002-03	1	4210
Melissa Oates	2003-04	1	2310
Mark White	1997-98	1	3300
Joanne Hodder	2004-05	1	3320
Erin Bradbury	2004-05	1	4703

* Some of these courses were team taught by two graduate students. List also includes distance education courses.

Baseline funding for graduate students in the School lags significantly behind other similar institutions across Canada. Greater baseline funding would allow for the recruitment of the top scoring students across Canada and internationally. It would also allow our present students (the majority are higher achieving students from within our school or university) to concentrate more on academics and less on extra-curricular employment resulting in earlier graduation rates.

Financial Support

Baseline Funding 2004/2005:	\$4000
Baseline Funding 2005/2006:	\$3750
Teaching Assistantship:	\$750 / semester
	Most full-time graduate students receive at least two per year
Teaching Stipend:	\$3800 / semester

The School has a few graduate students teaching undergraduate courses. In the fall of 2005 for example, 4 graduate students were sessional instructors. There are also some courses offered through distance education (HKR 1000, Dr. Behm, HKR 2004, 2005, Dr. Kavanagh, HKR 2601, Dr. Higgs) that provide funding for graduate students who undertake varying amounts of responsibility for the courses.

Faculty Research Funding: Varies

Two faculty members (Drs. Behm and MacKinnon) have significant research funding (i.e. >\$100,000 over multiple years) from NSERC or CIHR. Other faculty members (Drs. Sullivan and Loeffler) have grant funding from SSHRC that may or may not allow them to provide financial support to graduate students.

Academic Scholarships: Varies

In 2005/2006 for example, one graduate student received an \$18,000 scholarship from Newfoundland and Labrador Centre for Applied Health Research (NLCAHR). Very few other scholarships have been awarded or are available to our students.

Student Scholarships and Grants

- Student - Newfoundland and Labrador Centre for Applied Health Research (NLCAHR) Scholarship, \$18,000 2001/02
- Student - Newfoundland and Labrador Centre for Applied Health Research (NLCAHR) Research Grant \$5000, 2002/03
- Student - NLCAHR Scholarship, \$18,000, 2005/06
- Student - employed as a research assistant through Dr. Sullivan’s Vice-President’s SSHRC Grant – 2005/06 "Becoming a Mother: Exploring Women’s Coping Strategies"
- Student - Canadian Corps University Partnership Program - \$13,000: 2004/05
J. Armand Bombardier Internationalist Fellowship - \$10,000: 2004/05
- Student - Canadian Institute of Health research (CIHR) - \$18,500, 2005/06

Average graduate student will receive approximately \$5,500 per calendar year. Other's who teach receive scholarships or external funding from professor's, this may accumulate \$10 - \$15,000 per year.

3.4 Student Authored or Co-Authored Publications

The Graduate Program takes pride in advancing students with opportunities for student authored or co-authored publications.

Graduate students are indicated in **bold**. Undergraduate students are indicated with an underline.

Dr. Behm

Behm D.G., **Bradbury E.E., Haynes A.T., Hodder J.N., Leonard A.M., Paddock N.R.** Flexibility is not Related to Stretch-Induced Deficits in Force or Power. *Journal of Sports Science and Medicine* 5: 33-42, 2006.

Behm D.G., Bury S. M., Greely G.E.B., Poole A.C., MacKinnon S.N. An Unstable Base Alters Limb and Abdominal Activation Strategies during the Flexion-Relaxation Response. Accepted *Journal of Science and Sports Medicine*, 2006.

Kean C., Behm D.G., Young W.B. Fixed Foot Balance Training Increases Jump Height and Rectus Femoris Activation during Landing in Recreationally Active Women. *Journal of Sports Science and Medicine* 5: 138-148, 2006.

Behm DG., **Wahl M, Button D, Power K, Anderson K.** Relationship Between Ice Hockey Skating Performance and Selected Performance Measures. *Journal of Strength and Conditioning Research* 19 (2): 326-331, 2005.

Behm D.G., **Leonard A.,** Young W., Bonsey A., MacKinnon S. Trunk Muscle EMG Activity With Unstable and Unilateral Exercises. *Journal of Strength and Conditioning Research* 19(1):193-201,2005.

Anderson K., Behm D.G. Intrinsic and Extrinsic Factors Affecting Balance and Stability. *Sports Medicine* 35(1): 43-53, 2005.

Anderson K., Behm D.G. Trunk Muscle Activity Increases with Unstable Squat Movements. *Canadian Journal of Applied Physiology*; 30(1): 33-45 2005.

Button D.C., Behm D.G., **Holmes M.,** MacKinnon S. Vigilance is adversely affected by noise and force maintenance. *Occupational Ergonomics* 4: 751-756, 2004.

Anderson K., Behm D.G. Maintenance of EMG Activity and Loss of Force Output with Instability. *Journal of Strength and Conditioning Research* 18(3): 637-640, 2004.

Behm D., Bambury A., Cahill F., Power K. The Effect of Acute Static Stretching on Force, Balance, Reaction Time and Movement Time. *Medicine and Science in Sports and Exercise* 36(8): 1397-1402, 2004.

Power, K., Behm, D., Cahill, F., Carroll, M., Young W. An Acute Bout of Static Stretching: Effects on Force and Jumping Performance. *Medicine and Science in Sports and Exercise* 36(8): 1389-1396, 2004.

Behm D.G., **Button D.C.,** Barbour G., **Butt J.C.,** Young W.B. Conflicting Effects of Fatigue and Potentiation on Voluntary Force. *Journal of Strength and Conditioning Research* 18(2): 2004.

Behm D.G., **Power K.,** White M.D., LeDez K., Decker D., **Drinkwater E.** Effects of Hyperbaric (6 ATA) Pressure on Voluntary and Evoked Skeletal Muscle Contractile Properties. *Undersea and Hyperbaric Medicine Society Journal* 30(2): 103-115, 2003.

Behm D.G., **Power K., Drinkwater E.** Muscle activation is enhanced with multi - and uni-articular bilateral versus unilateral contractions. *Canadian Journal of Applied Physiology* 28(1): 38-52, 2002.

Behm D.G., Whittle J., Button D., Power K. Intermuscle differences in activation. *Muscle and Nerve* 25: 236-243, 2002.

Behm D.G., Reardon G., Fitzgerald J., Drinkwater E. The Effect of 5, 10, 20 Repetition Maximums on the Recovery of Voluntary and Evoked Contractile Properties. *Journal of Strength and Conditioning Research*: 16(2): 209-218, 2002.

Behm D.G., **Anderson K., Curnew R.S.** Muscle Force and Activation Under Stable and Unstable Conditions. *Journal of Strength and Conditioning Research* 16(3): 416-422, 2002.

Behm D.G., **Power K., Drinkwater E.** A Comparison of Interpolation and Central Activation Ratios As Measures of Muscle Inactivation. *Muscle and Nerve* 24: 925-934, 2001.

Behm D.G., **Button D.C., Butt J.C.** Factors Affecting Force Loss With Prolonged Stretching. *Canadian Journal of Applied Physiology* 26(3): 262-272, 2001.

Behm D.G., **Baker K.M., Kelland R., Lomond J.** The Effect of Muscle Damage on Strength and Fatigue Deficits. *Journal of Strength and Conditioning Research*: 15(2): 261-269, 2001.

Baker K.M., Behm D.G. The Ineffectiveness of Nasal Dilator Strips Under Aerobic Exercise and Recovery Conditions. *Journal of Strength and Conditioning Research* 13(3): 206-209, 1999.

Dr. Basset

Fortier S, Basset FA, Azizah G, Faverial J and Teasdale N (2005). Does feedback training from kinetic and kinematic discriminative parameters enhance starting block performance in sprinters? *J Sports Sci & Med.* 4: 134-143.

SUBMITTED ARTICLES TO PEER-REVIEWED SCIENTIFIC PUBLICATIONS

Dr. Behm

Behm D.G., **Burry S.M., Greeley G.E.D., Poole A., MacKinnon S.N.** Instability Alters Limb and Abdominal Activation Strategies during the Flexion-Relaxation Response. *Under review by British Journal of Sports Medicine*
Kean C., Behm D.G. Comparison of Static and Dynamic Balance Training on Muscle Activation, Jump and Sprint performance. *Under review by the Journal of Sports Science and Medicine.*

Behm D.G., **Bradbury E.E., Haynes A.T., Hodder J.N., Leonard A.M., Paddock N.R.** Flexibility is not Related to Stretch-Induced Deficits in Force or Power *Under review by the Journal of Sports Science and Medicine.*

Dr. MacKinnon

Holmes, M., MacKinnon, S., **Matthews, J.,** Albert, W. and **Mills, S.** (submitted). Effects of a simulated motion environment upon the physical demands of heavy materials handling operators.

Matthews, J., MacKinnon, S., Albert, W., **Holmes, M.** and Patterson, A. (submitted). Effects of load and floor stability on trunk function during lifting exertions.

EXPERIMENTS AND MANUSCRIPTS IN PROGRESS

Dr. Behm

Pitcher, M. MacKinnon S., Behm D.G. Reliability of a Modified Beiring Sorensen Back Endurance Test in Healthy and Low Back Pain Subjects. *Manuscript in progress.*

Pitcher, M. Behm D.G., MacKinnon S. Erector Spinae Force-EMG Relationships in Healthy and Low Back Pain Subjects. *Manuscript in progress.*

Pitcher, M., MacKinnon S., Behm D.G. Paraspinal Fatigue Profiles in Healthy and Low Back Pain Subjects. *Manuscript in progress.*

Gibbons S., Behm D.G., **Holmes M., Kean C.** Activation of the Psoas Major with Specific Rehabilitation Exercise Techniques. *Manuscript in progress.*

Behm D.G., **Carrol M., Curnew S.** The Effect of an Acute Bout of Submaximal Intensity Stretching on Hamstrings Force, Activation and Rate of Force Development. *Data Collection in Progress.*

Sparkes R., Behm D.G. Effectiveness of Instability Training. *Manuscript in Progress.*

Samson M., Behm D.G., **Bambury A.M.,** Young W. The Effect of Static and Dynamic Stretching within a Warm-up. *Data Collection in Progress.*

Dr. Basset

Fortier S. Effects of different muscle contractions on proprioception.

Handrigan G. Effects of fatigue on muscle coordination during long lasting dynamic exercises.

Power G. Control of breathing during exercise.

Dr. MacKinnon

MacKinnon, S.N., Wrigley, A., Albert, W., **Matthews, J.** and **Holmes, M.** Principle component analysis of lifts during which a motion induced interruption occurred.

MacKinnon, S.N., Albert, W., **Matthews, J.** and **Holmes, M.** Thoracolumbar motions measured during stumbles while working in a moving environment.

Dr. Sullivan

Sullivan, A.M., **Danielle LeDrew** Deviant Leisure for an Introductory Recreation/Leisure Studies Text.

ABSTRACTS

Dr. Behm

Power K., Behm D.G., An Acute bout of static stretching: Effects on force and jumping performance. *Canadian Journal of Applied Physiology* 29 (Suppl) S73: 2004.

Behm D.G., **Carrol M., Button D.** The Effect of an Acute Bout of Submaximal Intensity Stretching on Hamstrings Force, Activation and Rate of Force Development. *Canadian Journal of Applied Physiology* 29 (Suppl) S39: 2004.

MacKinnon S., **Holmes M.,** Behm D.G. Effects of platform motion on thoraco-lumbar kinematics during lifting exertions. *Canadian Society for Biomechanics 13th Biennial Conference*, p. 156, 2004.

Behm D.G., **Bambury A., Cahill F., Power K.** The Effect of an Acute Static Stretching on Balance Reaction and Movement Time. *European College of Sport Science Annual Congress* p.302, 2004.

Button D., Behm D.G. Vigilance is adversely affected by noise and force maintenance. *Canadian Journal of Applied Physiology* 28 (Suppl): S39, 2003.

Anderson K., Behm D.G. Maintenance of EMG Activity and Loss of Force Output with Instability. *Canadian Journal of Applied Physiology* 28 (Suppl): S27, 2003.

Anderson K., Behm D.G. Trunk Muscle Activity Increases with Unstable Squat Movements. *Canadian Journal of Applied Physiology* 28 (Suppl): S26, 2003.

Behm D.G., **Leonard A.,** Young W., Bonsey A., MacKinnon S. Trunk Muscle EMG Activity With Unstable and Unilateral Exercises. *Canadian Journal of Applied Physiology* 28 (Suppl): S30, 2003.

M Pitcher, D Behm, S MacKinnon Force-EMG Relationships of Bilateral Paraspinal Muscles. *Canadian Journal of Applied Physiology* 27 (Suppl): S40, 2002.

D.G. Behm, **D. Button, K. Power, K. Anderson, M. Connors** Relative Muscle Activation With Ice Hockey Actions.. *Canadian Journal of Applied Physiology* 27 (Suppl): S5, 2002.

D.G. Behm, **K.E. Power, E.J. Drinkwater** Muscle Activation is Enhanced with Multi - and Uni-articular Bilateral versus Unilateral Contractions.. *Canadian Journal of Applied Physiology* 27 (Suppl): S3, 2002

D.G. Behm, **D.C. Button** The Effect of Stimulus Anticipation on the Interpolated Twitch Technique.. *Canadian Journal of Applied Physiology* 27 (Suppl): S4, 2002.

S.N. MacKinnon, **M.J. Pitcher,** D.G. Behm Neuromuscular Fatigue Associated with Variations of a Modified Sorenson Test.. *Canadian Journal of Applied Physiology* 27 (Suppl): S32, 2002.

Behm D.G., **Whittle J., Button D., Power K.** Intermuscular differences in human skeletal muscle activation. *Canadian Journal of Applied Physiology* 26(5): 463, 2001.

Behm D.G., **Button D.C., Butt J.C.** Factors Affecting Force Loss With Prolonged Stretching. *Canadian Journal of Applied Physiology* 26(5): 462, 2001.

Behm D.G., **Anderson K., Curnew R.S.** Muscle Force and Activation Under Stable and Unstable Conditions.

Canadian Journal of Applied Physiology 26(5): 463, 2001.

Behm D.G., White M.D., LeDez K., Decker D., **Power K.** Force-frequency relationship of human skeletal muscle differentially affected by hyperbaric pressures. *Undersea Hyperbaric Medical Society Annual Conference 2001.*

Behm D.G., White M.D., LeDez K., Decker D., **Power K.** Hyperbaric pressure depresses the Force- EMG relationship. *Undersea Hyperbaric Medical Society Annual Conference 2001.*

Behm D.G., Reardon G., Fitzgerald J., **Drinkwater E.** The Effects of 5, 10, 20 RM on Voluntary and Evoked Contractile Properties. *Canadian Journal of Applied Physiology* 24(5): 426, 1999.

Behm D.G., Fitzgerald J. Effect of High Intensity Resistance on Muscle Activation. *Physiology Canada* 29(3): 150, 1998.

Behm D.G., **Baker K.M.**, **Kelland R.**, Lomond J. Differing Effects of DOMS of Strength and Relative Fatigue. *Canadian Journal of Applied Physiology*:29(5): 464, 1998.

Baker K.M. and Behm D.G. The Ineffectiveness of Nasal Dilator Strips with Exercise and Recovery. *Canadian Journal of Applied Physiology* 22: (Supplement): 3P, 1997.

Dr. MacKinnon

Holmes, M., MacKinnon, S., **Matthews, J.**, Albert, W., Mills, S. and Bass, D. (2005). Motion Induced Interruptions During Simulated Ship Motions. Presented: XXth Congress of the International Society of Biomechanics and 29th Annual Meeting of the American Society of Biomechanics, Cleveland, USA, 31 July – 5 August.

Matthews, J., MacKinnon, S., **Holmes, M.** and Albert, W. (2005). Thoracolumbar Kinematics During Lifting Exertions in Moving Environments. Presented: XXth Congress of the International Society of Biomechanics and 29th Annual Meeting of the American Society of Biomechanics, Cleveland, USA, 31 July – 5 August.

MacKinnon, S., **Holmes, M.**, **Matthews, J.**, Albert, W., Mills, S. and Bass, D. (2005). Motion Induced Interruption Increase Thoracolumbar Kinematics. Presented: XXth Congress of the International Society of Biomechanics and 29th Annual Meeting of the American Society of Biomechanics, Cleveland, USA, 31 July – 5 August.

MacKinnon, S., Akinturk, A., **Bradbury, E.**, **Petrie, L.**, Boone, J. and Simoes-Re, A. (2005). Motion Sickness Incidence During Lifteraft Research in Simulated Ocean Environments. Presented: 36th Annual Conference of the Association of Canadian Ergonomists, Halifax, Canada, 15-18 August.

Petrie, L., **Bradbury, E.**, MacKinnon, S. and Boone, J. (2005). Effects of Cold Water Immersion on Performance of Lifteraft Management Tasks. Presented: 36th Annual Conference of the Association of Canadian Ergonomists, Halifax, Canada, 15-18 August.

Drover, D., Brown, R. and MacKinnon, S. (2005). Measurement of Egress Time for Injured or Physically Challenged Users of Marine Evacuation Systems. Presented: 36th Annual Conference of the Association of Canadian Ergonomists, Halifax, Canada, 15-18 August.

Hodder, J., MacKinnon, S. and Ralhan, A. (2005). Biomechanical Changes Associated with Education and Experience Measured During Simulated Patient Transfer Activities. Presented: 36th Annual Conference of the Association of Canadian Ergonomists, Halifax, Canada, 15-18 August.

Bradbury, E., MacKinnon, S., Akinturk, A., **Petrie, L.**, Simoes-re, A. and Boone, J. (2005). Effects of Motion Upon the Completion of Lifteraft Management Tasks. Presented: 36th Annual Conference of the Association of Canadian Ergonomists, Halifax, Canada, 15-18 August.

MacKinnon, S., **Holmes, M.** and Behm, D. (2004). Effects of platform motions on thoraco-lumbar kinematics during lifting exertions. Presented: 13th Biennial Meeting of the Canadian Society for Biomechanics, Halifax, Canada, Aug. 4-7, 2004.

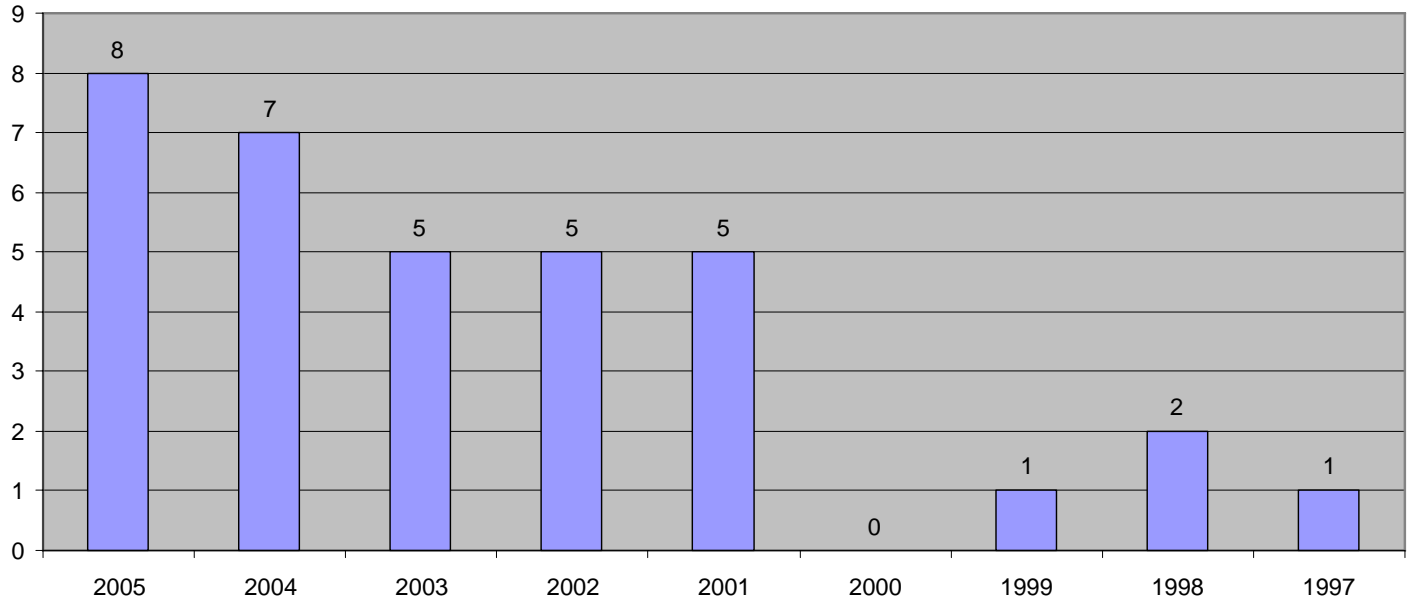
Matthews, JD. Albert, W and MacKinnon, S. (2004).The effect of quadriceps fatigue on maintaining balance. Presented: 6th Annual Conference of the Association of Canadian Ergonomists (Atlantic), St. John's, Newfoundland, March 19-20, 2004.

Durnford, D. MacKinnon, S and Molgaard, J. (2004). Normalization of upper limb EMG: A comparison of two methods. Presented: 6th Annual Conference of the Association of Canadian Ergonomists (Atlantic), St. John's, Newfoundland, March 19-20, 2004.

Dr. Loeffler and Dr. Card

Fong, I., Card, A. and Loeffler, T.A. (2003) Occupational Health and Safety Issues of Sea Kayaking Guides in Newfoundland and Labrador. SafetyNet Conference, St. John s, Newfoundland, October 30-31

Student (Co-) Authored Abstracts



3.5 Future Direction

Although smaller in number, some students interested in recreation have also had a specialized selection of MPE courses to reflect their interests or needs. A future direction of the School may be to develop an independent graduate recreation degree, in other words MREC degree. In addition, another future development could be the inclusion of a doctoral degree. Collaborations with the Faculties of Science (i.e., Biochemistry, Psychology), Engineering (i.e., Biomedical Engineering) and Medicine could provide the breadth of resources necessary for a Kinesiology based doctoral program, while collaborations with Education, Sociology, and others could be the basis of a doctoral program in physical education. An opportunity exists to examine this option given the present work being done at MUN on interprofessional education and collaborative health, education and research. The School's Director is part of this working group along with other health related schools/faculties (Medicine, Nursing, Pharmacy, Social Work). It is noted that a number of courses have been, or are taught by graduate students. Given the dependency on graduate student teaching, ensure quality courses are delivered, and the experience is a positive one for the graduate student(s), there is the need to develop and facilitate an orientation for graduate student instructors. (Note: an orientation was created and delivered to per course instructors January 2006. This process will expand to include a separate orientation session for graduate students).

To better service and attract teachers, especially from rural communities, a future direction of the graduate program may be to offer MPE courses by distance education. As a number of programs/degrees increased in the School, emphasis on research and publication increased, Faculty complement has not. There is a need to service both offerings and complement, and be “creative” in reviewing opportunities across campus to support the programs.

4.0 COMMUNITY SERVICE

4.1 Overview

Faculty members are very active in the community, and outstanding ambassadors for the School of Human Kinetics and Recreation, and Memorial University. In reviewing the list below you will notice how significant the contribution is, covering areas of Kinesiology, Physical Education, and Recreation. The Faculty members are well respected and ‘called upon’ often for presentations, interviews, reviews of scholarly work, and committee membership, from local to international.

4.2 Invited Presentations

Canadian Orthopaedic Division of the Canadian Physiotherapist Association, St. John’s NL
Newfoundland and Labrador Chiropractic Association, St. John’s, NL
Atlantic Coaching Institute, St. John’s, NL
Can Fit Pro Conference, St. John’s, NL
Fitness with a Flair and Aquaviva; Dalhousie University, Halifax, NS
Recreation Conference, College of the North Atlantic, St. John’s, NL
Therapeutic Recreation Services: Health Care Corporation of St. John's
Atlantic Coaches Seminar, Charlottetown, PEI
Canadian Association of Health Physical Education, St. John’s, NL
Recreation and Dance Annual Conference, St. John's, NL
Newfoundland Physiotherapy Association Annual Conference, St. John's, NL
Newfoundland Shodokan Karate Association Seminar, St. John's, NL
X-WAVE, St. John’s, NL
Coaching Association of Canada, St. John’s, NL
Newfoundland and Labrador Association of Occupational Therapists, St. John’s, NL
School of Maritime Studies – White Rose Training Series. St. John’s, NL
Occupational Health and Safety in Newfoundland and Labrador, St. John’s NL

4.3 Radio and Newspaper Interviews

MUN Gazette.
NTV
St. John’s Telegram
CBC-TV
Discovery Channel

CBC Radio One
CBC National Radio

4.4 Reviewers

Leisure Sciences
Association of Experiential Education International Conference
Journal of Experiential Education
Society and Leisure
Canadian Journal of Applied Physiology
Medical Research Fund of New Brunswick
Journal of Applied Physiology
Canadian Journal of Applied Physiology
European Journal of Applied Physiology
Canadian Journal of Physiology and Pharmacology
Journal of Science and Sports Medicine
Natural Science and Engineering Research Council (NSERC)
International Journal of Sports Physiology and Performance
Clinical Physiology
Neuroscience Letters
Muscle and Nerve
Biomedical Engineering
Canadian Institute for Health Research
Journal of Strength and Conditioning Research
Medicine Science Sports and Exercise
British Journal of Sports Medicine
Sports Medicine
Journal Pediatric Exercise Science
Journal of Athletic Training
Clinical Journal of Sports Medicine

4.5 Editorial Board

Occupational Ergonomics

4.6 National and Provincial Services and Committees

National Coaching Certification Program Master Learning Facilitator
National Board Member Coaching Association of Canada
National Expert Group for Long Term Athlete Development Model (LTAD)
National Coaching Certification Program Level II and III Course Conductor
Professional Fitness and Lifestyle Consultant Course Conductor (CFACA / CSEP)
Certified Fitness Consultant Course Conductor (CFACA / CSEP)
Squash Newfoundland
President Newfoundland and Labrador Basketball Association

Canadian Society for Exercise Physiology (CSEP)
Professional Fitness and Lifestyle Consultant Technical Committee
Newfoundland Fitness Appraisal Certification and Accreditation
Association of Experiential Education Women's Professional Group
Canadian Senior Women's National Hockey Championships Referee
The Newfoundland and Labrador Physical Education Specialist Council (PESIC)
Special Olympics Newfoundland/Labrador
The Eastern District School Board and a number of schools across the province
The Government of Newfoundland and Labrador Department of Health and Community Services
The Government of Newfoundland and Labrador Department of Education
The Government of Newfoundland and Labrador Department of Recreation, Tourism and Culture
The Dieticians of Canada
Newfoundland and Labrador Medical Association
Newfoundland and Labrador Association of Social workers
Association of Registered Nurses of Newfoundland and Labrador
The Nova District Active School Project
The Newfoundland and Labrador Centre for Applied Health Research
The Newfoundland and Labrador Coalition for Active Living
Newfoundland and Labrador Women's Basketball Coach
CAHPERD

4.7 Local Community Services and Activities

Avalon Ground Search and Rescue Team
Becoming an Outdoors Woman Program Instructor
East Coast Trail Association Map and Guidebook Committee
St. John's Minor Hockey Association Referee
Friends of Pippy Park Advisory Board Member
Former Board Member: Memorial University Recreation Complex Incorporated
St. John's Minor Girls "A" All Star Team Assistant Coach
St. Kevin's Elementary School Council Member
Habitat for Humanity Build Volunteer
Board Member Big Brothers Big Sisters of Eastern Newfoundland
St. John's Minor Hockey League Assistant Coach
St. John's Minor Hockey Association Referee
The City of St. John's Department of Recreation
Vikings Junior Basketball Association President
Gonzaga High School Basketball Coach

4.8 Challenges

The contribution to community service is extensive, and it is considered in reviews for promotion and tenure. On one hand this level of contribution is positive, and many benefit from

the contribution, however there is the need to review the time commitment given the significant teaching load, relatively small faculty complement, and focus on research. There is the need to balance or ensure that community service is connected with, or complements teaching, research, and creative activities.

5.0 FACILITIES AND EQUIPMENT

5.1 Overview

The School of Human Kinetics and Recreation (SHKR) academic unit is housed in the Physical Education (PE) Building at the St. John's Campus. The building was one of the original buildings constructed in 1961 when the Memorial University Campus moved from Parade Street to Elizabeth Avenue. The enrollment was 1,800 students compared to the current 18,000. The PE building has received relatively minor renovations since then. The building is considered dated, has no elevator to upper floors, and lacks the academic and research capacity to provide adequate resources to meet the needs of a vibrant, energetic, aspiring faculty. Some recent accomplishments of the diversified faculty include a faculty member winning the President's Award for Distinguished Teaching, the ongoing awarding of research grants (i.e., CIHR, NSERC), the awarding of a SafetyNet Research Chair for Workplace, Health and Safety to our School, membership on the National Coaching Association of Canada Board, and two faculty members providing expertise enabling several athletes to qualify for, and win Olympic medals.

5.2 Building Use and Management

There are three groups that use and manage the physical space in the PE building as follows:

1) Facilities Management. This unit manages a storage area under the gymnasium, a room for convocation gown rentals, and two storage rooms. Storage space that has been reassigned over the years from PE to other departments includes PE1017, PE2003, PE2021, PE 1003, PE1007, PE1015, and PE1016A.

2) Memorial University Recreation Complex (MURC). MURC controls all recreation related areas which includes: Strength and Conditioning Center, swimming pool, gymnasium, squash courts, rifle range, and the Splash Facility (boathouse on Long Pond) where SHKR conducts some undergraduate courses.

3) School of Human Kinetics and Recreation. The spaces in the Physical Education building that are managed by the School include the following: General Office, staff, faculty, and graduate student offices, functional anatomy lab, three rooms used for exercise physiology lab and graduate student work space, kinesiology clinic/lab (under construction), two classrooms, a graduate office, a combatives room, a student computer lab, a seminar room, and other storage areas. Due to the transfer of storage space to other units, the School of Human Kinetics and Recreation has significant storage needs that are not being met.

Space Designation

When MURC was incorporated in 2001, all recreation spaces and some storage space that were previously controlled/managed by the SHKR were transferred to MURC. The transfer left the School without control of the facilities and there have been challenges impacting academics, research, and athletic programs. Consequently, academic, research, and athletic programs have been, and are, compromised by the *lack and access* of space within the Physical Education Building, and facilities managed by MURC. With differing and often opposing mandates, and facility access being paramount to both units' (MURC and SHKR) success, a degree of acrimony has occurred between the School and MURC. *To our knowledge, the School of Human Kinetics and Recreation is the only school/faculty in the country that does not manage the facilities it needs to deliver academic programs within its own building.*

Academic and Athletic Programs

The School's academic program is responsible for the delivery of six undergraduate degrees that represent three streams (Physical Education, Recreation, Kinesiology) that include co-op and non co-op options. Approximately 450 students are enrolled in the undergraduate program, an increase of about 450% from one decade ago. The School offers two graduate degree programs that encompass four streams with an enrolment of approximately 40 students, an increase of 500% from one decade ago. The School also has the division of Varsity Athletics. This is a varsity athletics program that encompasses 12 teams and 185 athletes that compete in Atlantic University Sport (AUS). (Note: search is in progress for a Director of Athletics).

The academic program is often adversely impacted by insufficient *access* to the gymnasiums in the PE building, the Strength and Conditioning Center, and lack of equipment maintenance in the Splash Facility. University timetabling practices often necessitate double bookings of activity classes in the PE gymnasium, which often leads to overcrowding and insufficient space to teach pedagogically. Activity classes may be “bumped,” based on the nature of prioritizing class requirements. During the summer semester, student recreation and community needs increase and they appear to take priority over academics.

Crowded and noisy halls have become an issue in the PE building, as the vast majority of 1200 users of The Works walk through the southern corridor where the two classrooms in the PE building are located. This disrupts classes and is disruptive to faculty and staff. The academic program has continued to grow, and growth in the varsity athletics program is anticipated with the new Director of Athletics position. There is a need to 'revisit' mandates, priorities, and impact.

Varsity Athletic Facility Access

Varsity athletics currently cite the following five challenges in relation to facilities management and access at Memorial:

- 1) Lack of off-season training access for various sports. For example, lack of, or minimal

facility availability for varsity soccer during the off-season winter months.

2) Preferred training times are not provided. SEA~HAWKS volleyball and basketball teams are scheduled for late practice times (9:00 p.m. – 11:00 p.m.) to accommodate recreation scheduling. Athletes living in the externs often get home late and do not get to bed before 1:00 am.

3) Varsity coaches who make requests for additional practice time on short notice (two - three days) are often denied access.

4) Individual training flexibility has been lost. Under the School's auspices, individual varsity athletes regularly trained from 12:00 noon – 2:00 p.m. daily. At present athletes can only work on individual skills during regularly scheduled student recreation time, often impossible because of overcrowding during these regularly scheduled times.

5) Varsity coaches often find themselves seeking alternate facilities to operate leagues, camps, clinics, and other varsity related activities.

The continued success of the varsity athletic program is inherently dependent upon varsity coaches and athletes gaining adequate access to facilities. It is important to keep in mind the growth in Memorial University, and advances in both the School's academic program and varsity sport (i.e., Athletic Therapy and new Director of Athletics).

Research Implications

Due to space restrictions in the exercise physiology laboratories, research experiments are primarily limited to stationary activities. Whereas many studies have been conducted using isometric contractions, stationary cycling and treadmills as well as water immersion, typical activities of daily living and sport, involve a greater scope of activities that need more space in all three dimensions. Larger facilities would allow for expanded kinematic (i.e., high speed or digitizing photography) and kinetic (i.e., force plates) examinations of more dynamic activities, and proportional research funding opportunities. Faculty members have established a strong record of research in the past decade and further advances are threatened by lack of space and access

5.3 Future Direction

University administration collaboratively with the School (includes varsity athletics), MURC, and other stakeholders need to examine concerns, create strategies, and solutions for resolution, so all stakeholders can continue to advance.

The present arrangement, to manage and schedule facilities/activities has been in operation for five years. Like any new initiative a review and revision is both timely and necessary. The present model for the management of the existing space is not meeting the needs, interests, advances from an academic, research, or varsity athletics perspective.

6.0 RESEARCH AND SCHOLARLY ACTIVITIES

6.1 Overview

This section of the Self-Study Report reviews the scholarly activities of full-time faculty employed in the School of Human Kinetics and Recreation during the period of 1995-2005. Faculty were asked to provide information on the following areas:

1. Publication history
2. Membership in professional societies
3. Time devoted to research activity (including time spent with graduate students engaged in research activities)
4. Funding opportunities
5. Collaborative research opportunities
6. Conclusions

The data presented are aggregate and are normalized to the number of full-time faculty who provided information for a calendar year. *It should be noted that not all faculty responded to this questionnaire and faculty who have left the School since 1995 were not contacted to complete this questionnaire.*

6.2 Publication History

It is clear that the publication activity and success has increased dramatically over the last 5 years.

Conferences where faculty have presented scholarly work:

Newfoundland & Labrador Therapeutic Recreation Association Conference
Canadian Association of Gerontology
Atlantic Canadian Society for Certified Therapeutic Recreation Specialists
Canadian Council for Leisure Research
Leisure Research Symposium: National Recreation and Parks Association Congress
Canadian Society for Exercise Physiology
Canadian Association of Sports Medicine
Canadian Physiotherapy Association
Canadian Physiological Society
Association of Experiential Education International Conference
Coalition for Education in the Outdoors Research Symposium
Women's Hockey: Gender Issues On and Off the Ice
Pre-Olympic Scientific Congress
Olympic Scientific Congress
American Association for Health Physical Education Recreation and Dance
International Paralympic Committee Conferences
International Federation Adapted Physical Activity
International Hypoxia Symposium

Canadian Society of Sports Medicine
International Symposium on Biomechanics in Sports
Congrès de l' Association des chercheurs en Activité Physique et Sportive
Canadian Society for Biomechanics
American Society for Biomechanics
International Society for Biomechanics
International Ergonomics Association
Association for Canadian Ergonomists
Canadian Marine Hydromechanics & Structures Conference
ABCD Conference on Human Performance at Sea
Maritime Simulation Forum

The following list reflects the journals that full time faculty members either act as publication reviewers, or serve on the editorial staff.

Therapeutic Recreation Journal
Leisure Information Quarterly
Guest Editor: Leisure (Special Issue on Deviant Leisure)
Leisure Information Quarterly
Journal of Experiential Education
Leisure Sciences
Society and Leisure
Occupational Ergonomics
Clinical Physiology
Canadian Journal of Applied Physiology
European Journal of Applied Physiology
Canadian Journal of Physiology and Pharmacology
Canadian Institute for Health Research
Journal of Strength and Conditioning Research
Medicine Science Sports and Exercise
British Journal of Sports Medicine
Journal of Science and Sports Medicine
Journal of Athletic Training
Sports Medicine Journal
Journal of Athletic Training
Clinical Journal of Sports Medicine
Neuroscience Letters
Muscle and Nerve
Biomedical Engineering
Journal of Applied Physiology
Adapted Physical Activity Quarterly
CAHPERD Journal
Medicine and Science in Sports and Exercise
Journal of Athletic Training
NeuroScience Letters

6.3 Membership in Professional Societies

The following list represents the societies that FTP is *currently* registered members:

Canadian Society for Exercise Physiology
National Strength and Conditions Association
International Ergonomics Association
International Biomechanics Society
Association of Experiential Education
National Recreation and Parks Association
Atlantic Canadian Society for Certified Therapeutic Recreation Specialists
Canadian Society for Psychomotor Behaviour
International Council for Sport Science and Physical Education
Canadian Association for Health, Physical Education, Recreation and Dance

6.4 Time Devoted to Research Activities

The number of hours that full time faculty are engaged in research has increased over the last ten years. There is a slight decreasing trend in hours devoted to research activities and graduate student supervision. This reflects the staffing challenge the School has faced in the last several years and the added undergraduate teaching demands placed on current full time faculty members.

6.5 Funding Opportunities

It is clear that the number of applications to funding agencies has increased significantly in the last 10 years. More importantly is the frequency of success of these applications.

The following list contains the funding agencies FTP have been successful at securing funding:

Natural Science and Engineering Research Council
Canadian Institutes for Health Research
Search and Rescue Secretariat
Transport Canada
Social Science and Humanities Research Council
Newfoundland and Labrador Centre for Applied Health Research
Memorial University of Newfoundland
CIDA
Sport Canada
Centre of Sport Excellence (Quebec)

6.6 Collaborative Research Opportunities

FTP has had a history of collaborating with colleagues outside of Memorial University of

Newfoundland. More recent trends show that more collaborative, inter-disciplinary research partnerships had formed within the walls of the University.

6.7 Future Direction

While there has been considerable growth in research activity over the last 10 years, it is expected that this trend will continue with addition to the faculty complement. Addition of long needed laboratory space and graduate student offices will likely enhance the productivity of faculty in this area. These renovations are scheduled to being June 1, 2006.

All responders to this questionnaire agreed that the following barriers continue to exist with respect to growth in the School’s research mandate.

Access to School/University Funding
Success in External Funding
Access to Subject Pool
Difficulty in Obtaining Appropriate Research Equipment
Lack of Support Personnel (eg. technicians; programmers)
Lack of Space
Lack of Appropriately Trained Grad Students
Lack of Appropriate Funding for Grad Students (i.e. to attract students to your program)
Not enough time within workload to do research

Faculty should work in co-operation with administration to systematically remove these barriers and achieve our goal of research excellence in the School of Human Kinetics and Recreation.

7.0 CONCLUSIONS

This Self-Study Report has described our past, our present, challenges, and future direction, in specific areas.

Our plans for the **undergraduate program** will require:

- Review procedures for student selection/admission
- Monitor impact of implementation of Recreation Program
- Review class size/laboratory space and resources
- Review Physical Education degree program and include Co-operative Education in this review

Our plans for the **graduate program** will require:

- Review workload and impact on research
- Review graduate student teaching and orientation
- Consideration of Distance Education for MPE program
- Consider a Master in Recreation degree
- Revisit the PhD initiative in light of the inter-professional education and research

- initiative involving the health related faculties/schools on campus (Medicine, Nursing, Social Work, Pharmacy, Human Kinetics and Recreation)

Our plans for **community service** will require:

- Review time commitment
- Discussion regarding tenure and promotion
- Discussion regarding benefit to School/MUN

Our plans for **facilities and equipment** will require:

- Formal review and revision regarding management and control of space/facilities
- Collaboration with MUN Capital Campaign
- Increased support to upgrade existing equipment/facilities
- Complete proposed renovation/upgrades (student computer lab upgrade; Kinesiology Clinic; Athletic Therapy; graduate student offices; Director of Athletics and Coordinator of Athletics offices)

Our plans for the **research program** will require:

- Additional support
- Laboratory space/equipment enhancement
- Workload consideration

In the concluding remarks for the School of Human Kinetics and Recreation Self-Study Report, we felt it only fitting to articulate Memorial University Mission:

Memorial University is committed to excellence in teaching, research and scholarship, and service to the general public. Memorial University recognizes a special obligation to educate the citizens of Newfoundland and Labrador, to undertake research on the challenges this province faces and to share its expertise with the community.

You will notice that the School of Human Kinetics and Recreation Mission complements or is an extension of, the Universities Mission.

The School of Human Kinetics and Recreation prides itself in a student centered, experiential approach to teaching, research, community advancement, and varsity athletics. We are dedicated to promoting the health and wellness of the citizens of Newfoundland/Labrador and beyond, through our Kinesiology, Physical Education and Recreation undergraduate, co-operative education, and graduate programs. We are committed to growth and sustainability through strategic planning, ongoing reviews, and collaboration with other units. As a smaller School with a sense of community, we have the distinct advantage of ensuring standards are maintained, and future leaders are provided the student advising they deserve.

There is no doubt we are committed to students, teaching, research, community, and varsity athletics. The School is grounded in promoting the health and wellness of the citizens of Newfoundland/Labrador and beyond. We are determined to strengthen and further advance as the result of this academic review, its recommendations, the Universities strategic plan, and ultimately the creation of the School of Human Kinetics and Recreation strategic plan for the future.

APPENDIX 1

Student's Comment on Their Work Term Experiences

1. The co-op experience has taught me to step up and be a leader. (Jonathan Hickman, PHSD, Spring 2005, WT 2)
2. Co-op is a wonderful way to grow personally as well as professionally. Each placement presents its own unique challenges that you work to overcome. (Megan Robinson, KIN, Spring 2005, WT I)
3. I have learned many new things throughout my work term which I would not have learned anywhere else. Some of these things include how to use a new program, becoming independent enough to travel alone off the island and also being able to do anything if I really tried, which this work term proved to me. (Amanda George, RECR, S 2003, WT I)
4. I gained helpful experience in dealing with children and parents, which will be of great assistance when I become a teacher. As well, I learned a great deal about myself in terms of what I can handle dealing with children and I found out that I love it. (Michael Hawco, PHSD, S 2003, WT I)
5. Co-op has improved my interpersonal and creative skills so much. The experience is priceless and I think everyone should go through this program. (Fred Cutler, PHSD, Spring 2005, WT II)
6. My co-op experience has helped me tremendously in my pursuit to further my education. It allowed me to write valuable skills and strengths that I have acquired on my resume and my applications to graduate studies. It provided me with exposure to real life situations, challenges and scenarios. I think that I have a competitive edge because of my co-operative education experiences. They have certainly been an asset in my career thus far. (Erica Pritchett, KIN, Fall 2005 WT III)
7. It is a great experience to discover your strengths and abilities. It also allows you to see if this is the right field for you. (Robert Parsons, PHSD, Spring 2004, WT I)
8. I have learned more about being independent and responsible. I've gained a lot of hands-on experience about my field of work and I learned more about myself and how well I perform in different settings and situations. (Robert O'Brien, PHSD, S 2003, WT I)
9. I learned how to efficiently use problem solving to deal with certain situations in order to promote positive rather than negative outcomes. (Leann Keating, KIN, Spring 2005, WT I)
10. I learned great organization and teaching skills during my work term which I would not

- have learned elsewhere. (Justin Blackler, PHSD, S 2003, WT I).
11. The Co-op experience provides students with the actual hands-on experience. It is more beneficial to a student than any class could be. Co-op teaches you more than any course you may take during your degree. (Steve Martin, PHSD, Fall 2005, WT III)
 12. I have definitely benefited from my work term. It has allowed me to add some very strong work placements to my resume and it has allowed me to gain great contacts in the workplace. My work terms definitely have made me a better employee and taught me a lot. (Stephen Croft, KIN, F 2003, WT 3)
 13. I learned a lot of transferable skills such as how to communicate with different age groups, time management, how to meet deadlines and a great deal of supervision skills. (Alyssa Moulard, KIN, S 2003, WT I)
 14. Co-op is a wonderful way to grow personally as well as professionally. Each placement presents its own unique challenges that you work to overcome. (Megan Robinson, KIN, S 2005 WT I)
 15. This work term has given me valuable skills that I can carry with me for the rest of my life.
(Calvin Lynch, KIN, S 2005, WT I)
 16. My co-op experience has given me a lot of relevant work experience. It has allowed me to ensure that physiotherapy is the career path I wish to pursue. Throughout my work term, I have developed and fine tuned many skills that will assist me in my future endeavors. (Melanie Haire, KIN, Fall 2005, WT III)
 17. For the most part, I thoroughly enjoyed my work terms. I really found my niche and am hoping to pursue it at a graduate level. This was a job field that I never would have thought of outside Co-op.
(Wendy Janes, KIN, Fall 2005, WT III)
 18. I have learned a lot about teaching physical education classes and also how to overcome most of my shyness. This experience has made me realize that I really do want to be a physical education teacher. (Kathryn Blagdon, PHSD, S 2003, WT I)
 19. My knowledge of occupational ergonomics has increased dramatically. As well, my presentation skills improved greatly, so has my ability to work individually and with others. (Anne Marie Bourgeois, KIN
Fall 2002, WT III)
 20. Through co-op, I have been able to discover future job opportunities as well as learn what really interests me. (Crystal Kean, KIN, Fall 2002, WT III)

21. I have gained job experience that I wouldn't have obtained otherwise, this helped in my application writing. I made relationships with professionals within the city. (Cynthia Littlejohn, KIN, Fall 2005, WT III)
22. I have greatly benefited from my co-op experiences. Co-op gives students a great chance to get out into the work place and get a feel for what aspects of their academics they may want to pursue as a career. Co-op is also a great way to go about learning the skills we need to both find a job and survive in the work place. (Toby Dunne, KIN, Fall 2002, WT III)
23. Co-op has given me the practical experience that I can relate to the course material. It allows you to network in your field. I feel confident that I will get a job when I graduate. (Dave Toope, RECR, Fall 2002, WT III)
24. It allowed me to apply the theory I have learned in my academic course to practical, real life situations. It has also given me opportunities to work in professional settings which will help in choosing a career down the road. (Sarah Tilley, KIN, Fall 2002, WT III)
25. I learned what it is like to have other people approaching me for help, direction, ideas, etc. It was great to be on the other side of the table. (Nicole Newell, KIN, Spring 2005, WT I)
26. Overall, my work terms have allowed me to apply classroom knowledge to real world settings, being able to transfer what I have learned and adding hands-on experience is what has benefited me most. (Michael Greene, KIN, Fall 2002, WT III).
27. I learned how to work with groups, how to organize, how to plan, and more beneficial time management skills. Also, I learned how to work in a team. (Natasha Pelley, KIN, S 2003, WT I)
28. I have benefited from this work term by learning lifelong skills such as dealing with people in a proper manner, punctuality, time management, and organizational skills. (Diana Murphy, RECR, S 2003, WT I)
29. I have benefited from my co-op experience by becoming more familiar with children's play habits as well as problem solving (from behavioral issues). Also, my work experiences have helped me develop interpersonal skills through dealing with the public, as well as good organizational and planning skills. Furthermore, it has helped me reaffirm my career choice. (Mervin Parsons, PHSD, Fall 2002, WT III)
30. Definitely the program has provided me with practical experience in many of the diverse professional fields that a Kinesiology degree offers. This has helped me greatly in choosing a future career path.

(Joanne Hodder, KIN, Fall 2002, WT III)

31. I feel that this co-op experience has provided me with some insights into possible future careers and some great professional connections which will help me down the road.
(Brian Cheeseman, KIN, Fall 2005, WT III)
32. It is an indescribable benefit. You will learn about different careers and jobs, it may make your decision on your future plans. You will meet people, make friends and make money. CHOOSE CO-OP! (Anonymous, KIN S 2003, WT I)

APPENDIX 2

SCHOOL OF HUMAN KINETICS AND RECREATION Faculty and Credentials

* **NOTE:** The intent of the list of faculty members and credentials is to share a sample of our School's expertise. Complete curriculum vitae's are available in the Director's office in hardcopy format, for review during the onsite visit. An electronic or hardcopy may be forwarded to the review panel in advance, upon request.

Professors

Bluehardt, Mary (Director School Human Kinetics and Recreation), B.P.H.E *Lakehead*, MSc. *Lakehead*, PhD *Toronto*

Behm, David, B.P.E., B.Ed. *Ottawa*, M.S. *McMaster*, Ph.D. *McGill*
<http://www.ucs.mun.ca/~dbehm>

Higgs, Colin, Dip. Phys.Ed. *St. Luke's*, B.Sc., M.Sc. *Oregon*, M.Ed. *Memorial*, Ph.D. *Oregon*

Loeffler, TA, B.A. *Prescott College*, M.S. *Mankato State*, Ph.D. *Minnesota*; CSU Teaching Award, 1998

Associate Professors

Butler, Frank T., B.P.E. *Memorial*, M.Ed. (P.E.) *Springfield*

Kavanagh, Basil, B.P.E., B.Ed., M.P.E. *Memorial*, Ph.D. *Iowa*

Kuester, Vivienne, Dip. Phys. Ed. *Durham*, M.Ed. *Bowling Green*

MacKinnon, Scott, B.P.E. *New Brunswick*, M.Sc. *Dalhousie*, Ph.D. *Cape Town*

Wheeler, Ralph, B.P.E., B.Ed., M.P.E., *Memorial*, Ph.D., *Alberta*

Assistant Professors

Basset, Fabien, B.P.E, M.Sc., Ph.D. *Laval*

Byrne, Jeannette, B.Sc. PT *Dalhousie*, M.Sc. *Kinesiology Waterloo*

Card, Antony, B.Ed. (Hons) *DeMontfort*, M.A.(Ed.), Ed.D. *Southampton*

Rohr, Linda, B.Sc., M.Sc. *Waterloo*, Ph.D., *Waterloo*

Sullivan, Anne-Marie, B. Rec. *Dalhousie*, M.A. *Waterloo*, Ph.D., *Guelph*

Co-op Program Manager

Downey, Julie, B.Sc. *Memorial*

Co-op Coordinator

Innes, Gail, B.A.(Hons.) *York University*, M.A.L.S. *Wesleyan University*

Note: final Board approval pending on new hire Dr. Angela Loucks-Atkinson (Assistant Professor – August 1, 2006).