SENATE AGENDA (REVISED)

Friday, January 15, 2016

2:30 p.m. - F210

1. ADOPTION OF THE MINUTES OF THE SENATE MEETING OF: December 11, 2015

2. <u>BUSINESS ARISING FROM THE MINUTES</u>

UNFINISHED BUSINESS from the December 11, 2015 SENATE MEETING

5. REPORTS of STANDING COMMITTEES and FACULTY or UNIVERSITY COUNCILS

GRADUATE STUDIES COUNCIL (page 4)

MOTION 1: That the report of the Graduate Studies Council dated October 26, 2015 be

received.

MOTION 2: That Senate approve the MSc Kinesiology courses as outlined in the attached

document.

RESEARCH COUNCIL (page 38)

MOTION 1: That Senate approve the Research Council report dated October 30, 2015.

MOTION 2: That Senate approve the creation of the Integrative Watershed Research Centre

(WRC), as attached.

PLANNING AND PRIORITIES COMMITTEE (page 52)

MOTION 1: That the Report of the Planning and Priorities Committee dated October 16,

2015, be received.

MOTION 2: That Senate grant approval of the Stage 1: Program Proposal for a Bachelor of

Arts, Child and Family Studies program proposal, as attached.

6. OTHER BUSINESS

7. AMENDMENT of BY-LAWS

MOTION 1: That Article 9.5.2 of the Senate Bylaws be amended as outlined below:

 Notice of Motion Regarding Dissolution of Article 9.5.2 (Technology and Infrastructure Subcommittee) and the Creation of Article 9.6 (Technology and Infrastructure Committee)

The Bylaws and Elections Subcommittee passed a motion to dissolve the Technology and Infrastructure Subcommittee and create it as a full Senate Committee. The terms of reference will remain the same. The new committee will incorporate the changes, if passed, to include the revisions to "members elected by faculty council."

Current article reads:

9.5.2.1 Technology & Infrastructure Subcommittee (T&I)

- (a) Ex Officio Members:
 - (i) the Executive Director, Library Services, or designate; and
 - (ii) the Vice-President, Administration (non-voting).
- (b) Members Elected by Faculty Council:
 - (i) one (1) faculty Senator or non-Senator from each Faculty, one of whom shall be elected by the Committee to serve as Chair, and one of whom shall be elected by the Committee to serve as Vice-Chair;
 - (ii) one (1) faculty Senator who is a full-time lab, seminar or service course instructor; and
 - (iii) two (2) student representatives from any Faculty.
- (c) Terms of Reference:
 - (i) to engage in on-going review, needs assessment and policy development in all matters related to academic technology and infrastructure (where infrastructure includes both academic physical resources and human resources in academic support areas), and to make recommendations to the Teaching & Learning Committee as necessary and appropriate, for conveyance to Senate;
 - (ii) to provide advice and priority-setting assistance to the VPFA regarding:
 - 1) support for teaching, learning and scholarly research through the application of computing, information and multi-media technologies;
 - 2) the need for, and design of, new or renovated teaching, learning and research space:
 - 3) staffing needs in academic support areas such as technology services, research assistance, lab supervision and secretarial or clerical support; and
 - 4) the allocation of the annual budgets in technology and academic infrastructure areas:
 - to invite and assess applications for the annual Information Technology in Teaching and Learning Fund, and make recommendations to the PVPAR on the awarding of these funds;
 - (iv) when other supplementary funds become available for the acquisition of additional technology resources, to oversee the process whereby these funds are announced and awarded on a competition basis; and
 - (v) to deal with such other matters as may be assigned from time to time by the Teaching & Learning Committee or by Senate.

Revised article reads:

- 9.6 Technology & Infrastructure Committee (T&I)
- (a) Ex Officio Members:
 - (i) the Executive Director, Library Services, or designate; and
 - (ii) the Vice-President, Administration (non-voting).
- (b) Members Elected by Faculty Council:

- (i) one (1) faculty Senator or non-Senator from each Faculty, one of whom shall be elected by the Committee to serve as Chair, and one of whom shall be elected by the Committee to serve as Vice-Chair;
- (ii) one (1) faculty Senator who is a full-time lab, seminar or service course instructor; and
- (iii) two (2) student representatives from any Faculty.

(c) Terms of Reference:

- (i) to engage in on-going review, needs assessment and policy development in all matters related to academic technology and infrastructure (where infrastructure includes both academic physical resources and human resources in academic support areas), and to make recommendations to the Teaching & Learning Committee as necessary and appropriate, for conveyance to Senate;
- (ii) to provide advice and priority-setting assistance to the VPFA regarding:
 - 1) support for teaching, learning and scholarly research through the application of computing, information and multi-media technologies;
 - the need for, and design of, new or renovated teaching, learning and research space;
 - 3) staffing needs in academic support areas such as technology services, research assistance, lab supervision and secretarial or clerical support; and
 - 4) the allocation of the annual budgets in technology and academic infrastructure areas:
- (iii) to invite and assess applications for the annual Information Technology in Teaching and Learning Fund, and make recommendations to the PVPAR on the awarding of these funds;
- (iv) when other supplementary funds become available for the acquisition of additional technology resources, to oversee the process whereby these funds are announced and awarded on a competition basis; and
- (v) to deal with such other matters as may be assigned from time to time by the Teaching & Learning Committee or by Senate.

8. <u>ELECTIONS</u>

- Elect two faculty Senators to serve on the Pension and Benefits Advisory Committee for a two year term commencing July 1, 2015.
- Elect one Senator from outside the discipline, possibly outside the Faculty of Arts and Science, to serve on the Search Committee for a tenure-track position in Native Studies.
- Elect two Senators to serve on the Chancellor's Selection Committee.
- Elect two faculty to serve on the Special Governance Commission.

Nipissing University Report of the Graduate Studies Council October 26, 2015

The meeting of the **Graduate Studies Council** was held on Friday, October 16, 2015 at 9:00 a.m. Due to a lack of quorum, an electronic motion and vote were sent to voting members on Monday, October 19, 2015.

Present: Absent with Regrets:

S. Rich Lorraine Frost H. Earl

M. Tuncali John Kovacs M. Wackowiak

S. Connor D. Walters

N. Black

C. Richardson

J. Graham

Suzanne McGinn - recording secretary

Guests:

S. Tedesco R. Roome-Rancourt Trevor Smith Jim McAuliffe Dean Hay

Kelly Brown Paul Ritter Robert Brownlee

Sharon Rich welcomed members and guests to the meeting of the Graduate Studies Council. The following motions were passed by the Graduate Studies Council:

Motion: That the MSc Kinesiology courses be approved as attached.

(Richardson/Frost) APPROVED

Respectfully submitted,

Dr. Sharon Rich

Associate Vice-President Academic Chair, Graduate Studies Council

Motion 1: That the report of the Graduate Studies Council, dated October 26, 2015, be accepted.

Motion 2: That Senate approve the MSc Kinesiology courses as attached.

MOTION 1: That the Graduate Studies in Education Committee recommend to Graduate Studies Council the approval of the course KINE 5006 Research Methods in Kinesiology as a required course in the Masters of Science in Kinesiology Degree.

| Course Code | KINE 5006 | | |
|----------------------------------|---|--|--|
| Course Title | Research Methods in Kinesiology | | |
| Course Prerequisite | Enrollment in the MSc in Kinesiology Program | | |
| Course Corequisite | Click here to enter text | | |
| Antirequisite | Click here to enter text | | |
| Total Hours | ☐36 hours ☐ 72 hours ☐ Other Click here to specify | | |
| Breakdown of Hours | Choose an item from this drop down menu | | |
| | ☐ Other Click here to specify | | |
| Course Credits | ☐3 credits ☐ 6 credits ☐ Other Click here to specify | | |
| Course Description | Students investigate common methodological procedures used in | | |
| (Restricted to 50-75 words, | Kinesiology research. | | |
| present tense and active voice) | | | |
| Course Grouping or Stream | Does this course belong to a Group or Stream? | | |
| | | | |
| Program Implications | Does this course have program implications? | | |
| | ☐ No ☐ Yes Students must successfully complete this course in | | |
| | partial-fulfillment of their degree requirements | | |
| Cross-Listing or Cross-Coding | ☐ Cross-Listed - this course may be credited towards | | |
| | Click here to specify | | |
| | ☐ Cross-Coded - this course is cross-coded with | | |
| | Click here to specify | | |
| Learning Expectations/ | Develop the ability to critically evaluate existing literature. | | |
| Outputs | Demonstrate the ability to formulate a research question and | | |
| (6-8 points, visible, measurable | appropriate study design to answer that question. | | |
| and in active voice) | 3. Evaluate various designs used in research studies, including their | | |
| | potential strengths and weaknesses. | | |
| | 4. Develop a working knowledge of standardized publication | | |
| | guidelines such as those used by the American Psychological | | |
| | Association. | | |
| | 5. Recognize ethical issues in kinesiology research and evaluate | | |
| | research protocols through the application of the tri-council policy of | | |
| | Canada. | | |

Comparative Data (Strongly recommended but not required): Please see $\underline{\text{Appendix A}}$ for comparative data

Please list course numbers and titles. Course descriptions are NOT necessary.

| University | Equivalent Course(s) and Titles | Non-Equivalent but 50% or more overlap |
|-----------------|---------------------------------|--|
| Brock | Click here to enter text. | Click here to enter text. |
| Carelton | Click here to enter text. | Click here to enter text. |
| Guelph | Click here to enter text. | Click here to enter text. |
| Lakehead | Click here to enter text. | Click here to enter text. |
| Laurentian | Click here to enter text. | Click here to enter text. |
| McMaster | Click here to enter text. | Click here to enter text. |
| OCAD | Click here to enter text. | Click here to enter text. |
| Ottawa | Click here to enter text. | Click here to enter text. |
| Queen's | Click here to enter text. | Click here to enter text. |
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| Waterloo | Click here to enter text. | Click here to enter text. |
| Western | Click here to enter text. | Click here to enter text. |
| Wilfrid Laurier | Click here to enter text. | Click here to enter text. |
| Windsor | Click here to enter text. | Click here to enter text. |
| York | Click here to enter text. | Click here to enter text. |

Statement of Need:

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Statement of Resources:

MOTION: That the Graduate Studies in Education Committee recommend to Graduate Studies Council the approval of the course KINE 5007 Statistics in Kinesiology as a required course in the Masters of Science in Kinesiology Degree.

| Course Code | KINE 5007 | | |
|----------------------------------|--|--|--|
| Course Title | Statistics in Kinesiology | | |
| Course Prerequisite | This course is restricted to students enrolled in the MSc in Kinesiology. | | |
| | Successful completion of KINE 5006. | | |
| Course Corequisite | Click here to enter text | | |
| Antirequisite | Click here to enter text | | |
| Total Hours | ☐36 hours ☐ 72 hours ☐ Other Click here to specify | | |
| Breakdown of Hours | Choose an item from this drop down menu | | |
| | ☐ Other Click here to specify | | |
| Course Credits | ☐3 credits ☐ 6 credits ☐ Other Click here to specify | | |
| Course Description | Students investigate common statistical analyses used in Kinesiology | | |
| (Restricted to 50-75 words, | research. | | |
| present tense and active voice) | | | |
| Course Grouping or Stream | Does this course belong to a Group or Stream? | | |
| | No ☐ Yes Click here to specify | | |
| Program Implications | Does this course have program implications? | | |
| | ☐ No ☐ Yes Students must successfully complete this course in | | |
| | partial-fulfillment of their degree requirements | | |
| Cross-Listing or Cross-Coding | ☐ Cross-Listed - this course may be credited towards | | |
| | Click here to specify | | |
| | ☐ Cross-Coded - this course is cross-coded with | | |
| | Click here to specify | | |
| Learning Expectations/ | Demonstrate an understanding of the fundamental principles and | | |
| Outputs | assumptions underlying key statistical methods and procedures. | | |
| (6-8 points, visible, measurable | Demonstrate an advanced knowledge of relevant statistical | | |
| and in active voice) | analyses, including analysis of variance, multiple analyses of variance, | | |
| | multiple regression, and non-parametric statistics. | | |
| | 3. Develop the ability to use an appropriate statistical analysis program | | |
| | for data management and analysis. | | |
| | 4. Demonstrate the ability to accurately report the results of statistical | | |
| | analyses. | | |

Comparative Data (Strongly recommended but not required): Please see $\underline{\text{Appendix A}}$ for comparative data

Please list course numbers and titles. Course descriptions are NOT necessary.

| University | Equivalent Course(s) and Titles | Non-Equivalent but 50% or more overlap |
|-----------------|---------------------------------|--|
| Brock | Click here to enter text. | Click here to enter text. |
| Carelton | Click here to enter text. | Click here to enter text. |
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| Laurentian | Click here to enter text. | Click here to enter text. |
| McMaster | Click here to enter text. | Click here to enter text. |
| OCAD | Click here to enter text. | Click here to enter text. |
| Ottawa | Click here to enter text. | Click here to enter text. |
| Queen's | Click here to enter text. | Click here to enter text. |
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| Wilfrid Laurier | Click here to enter text. | Click here to enter text. |
| Windsor | Click here to enter text. | Click here to enter text. |
| York | Click here to enter text. | Click here to enter text. |

Statement of Need:

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Statement of Resources:

MOTION: That the Graduate Studies in Education Committee recommend to Graduate Studies Council the approval of the course KINE 5016 Sensory-Movement Behaviour as an elective course in the Masters of Science in Kinesiology Degree.

| Course Code | KINE 5016 | | |
|--|--|--|--|
| Course Title | Sensory-Movement Behaviour | | |
| Course Prerequisite | This course is restricted to students enrolled in the MSc in Kinesiology | | |
| Course Corequisite | Click here to enter text | | |
| Antirequisite | Click here to enter text | | |
| Total Hours | ☐ 36 hours ☐ 72 hours ☐ Other Click here to specify | | |
| Breakdown of Hours | Choose an item from this drop down menu Other Click here to specify | | |
| Course Credits | ☐3 credits ☐ 6 credits ☐ Other Click here to specify | | |
| Course Description (Restricted to 50-75 words, present tense and active voice) | Students investigate several topics relating to the neurological processes underlying human movement behaviours. | | |
| Course Grouping or Stream | Does this course belong to a Group or Stream? ☐No ☐ Yes Click here to specify | | |
| Program Implications | Does this course have program implications? ☐No ☐ Yes Click here to specify | | |
| Cross-Listing or Cross-Coding | □ Cross-Listed - this course may be credited towards Click here to specify □ Cross-Coded - this course is cross-coded with Click here to specify | | |
| Learning Expectations/ Outputs (6-8 points, visible, measurable and in active voice) | Acquire an understanding of the human sensory structures, afferent and efferent neural pathways within the human nervous system, and the neural-control of the muscular system. Examine the change in the human sensory-movement system during the acquisition of skilled performances of goal-directed actions. Develop an understanding of the environmental conditions that produce efficient acquisition and retention of skilled performance. Create an advanced knowledge base of the capacity of human attention during skilled performance. Demonstrate the ability to critically analyse the research methods and equipment used to evaluate human sensation, perception, cognition, and movement behaviours. Demonstrate familiarization with current interests, findings, and literature in movement behaviour research. Apply movement behaviour concepts to vocational, leisure, and sport settings that are prevalent within Northeastern Ontario (e.g., military, remote rehabilitation services, ringette, hockey, & search and rescue). | | |

Comparative Data (Strongly recommended but not required): Please see $\underline{\text{Appendix A}}$ for comparative data

Please list course numbers and titles. Course descriptions are NOT necessary.

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| McMaster | Click here to enter text. | Click here to enter text. |
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| Windsor | Click here to enter text. | Click here to enter text. |
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Statement of Need:

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Statement of Resources:

MOTION: That the Graduate Studies in Education Committee recommend to Graduate Studies Council the approval of the course KINE 5017 Biomechanics and Ergonomics as an elective course in the Masters of Science in Kinesiology Degree.

| Course Code | KINE 5017 | |
|----------------------------------|---|--|
| Course Title | Biomechanics and Ergonomics | |
| Course Prerequisite | This course is restricted to students enrolled in the MSc in Kinesiology | |
| Course Corequisite | Click here to enter text | |
| Antirequisite | Click here to enter text | |
| Total Hours | ☐36 hours ☐ 72 hours ☐ Other Click here to specify | |
| Breakdown of Hours | Choose an item from this drop down menu ☐ Other Click here to specify | |
| Course Credits | ☐3 credits ☐ 6 credits ☐ Other Click here to specify | |
| Course Description | Students examine issues surrounding the quantification of forces that | |
| (Restricted to 50-75 words, | act upon or are produced by the human body in applied, clinical, and | |
| present tense and active voice) | laboratory settings. | |
| Course Grouping or Stream | Does this course belong to a Group or Stream? | |
| | No ☐ Yes Click here to specify | |
| Program Implications | Does this course have program implications? | |
| | □No □ Yes Click here to specify | |
| Cross-Listing or Cross-Coding | ☐ Cross-Listed - this course may be credited towards | |
| | Click here to specify | |
| | ☐ Cross-Coded - this course is cross-coded with Click here to specify | |
| Learning Expectations/ | Demonstrate a thorough understanding of the biomechanics and | |
| Outputs | ergonomics of human motion in rehabilitation, sport, and workplace | |
| (6-8 points, visible, measurable | settings. | |
| and in active voice) | 2. Demonstrate knowledge of the application, instrumentation and techniques of kinetics, kinematics, kinesiological electromyography, and anthropometric analysis in the study of normal and abnormal human movement. | |
| | 3. Demonstrate an understanding of the basic signal processing | |
| | techniques used in the study of biomechanics and ergonomics. | |
| | 4. Demonstrate an understanding of basic tools used for the | |
| | ergonomic assessment of various movement tasks (e.g. jobs demands analyses, etc.). | |
| | 5. Demonstrate familiarization with current interests and findings in | |
| | biomechanics and ergonomics research. | |
| | 6. Apply biomechanical and ergonomic principles and assessment techniques to industrial settings specific to Northeastern Ontario (e.g., mining, forestry, military, search and rescue, and more). | |

Comparative Data (Strongly recommended but not required) Please see Appendix A for comparative data

Please list course numbers and titles. Course descriptions are NOT necessary.

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|-----------------|---------------------------------|--|
| Brock | Click here to enter text. | Click here to enter text. |
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| Wilfrid Laurier | Click here to enter text. | Click here to enter text. |
| Windsor | Click here to enter text. | Click here to enter text. |
| York | Click here to enter text. | Click here to enter text. |

Statement of Need:

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Statement of Resources:

MOTION: That the Graduate Studies in Education Committee recommend to Graduate Studies Council the approval of the course KINE 5026 Sport, Exercise, and Performance Psychology as an elective course in the Masters of Science in Kinesiology Degree.

| Course Code | KINE 5026 | |
|---|--|--|
| Course Title | Sport, Exercise, and Performance Psychology | |
| Course Prerequisite | This course is restricted to students enrolled in the MSc in Kinesiology | |
| Course Corequisite | Click here to enter text | |
| Antirequisite | Click here to enter text | |
| Total Hours | ☐36 hours ☐ 72 hours ☐ Other Click here to specify | |
| Breakdown of Hours | Choose an item from this drop down menu | |
| | ☐ Other Click here to specify | |
| Course Credits | ☐3 credits ☐ 6 credits ☐ Other Click here to specify | |
| Course Description | Students explore the application of psychosocial concepts and | |
| (Restricted to 50-75 words, | psychological theories to cognitive-behaviour change strategies in | |
| present tense and active voice) | individual and group settings. | |
| Course Grouping or Stream | Does this course belong to a Group or Stream? | |
| | □No □ Yes Click here to specify | |
| Program Implications | Does this course have program implications? | |
| | □No □ Yes Click here to specify | |
| Cross-Listing or Cross-Coding | ☐ Cross-Listed - this course may be credited towards | |
| | Click here to specify | |
| | ☐ Cross-Coded - this course is cross-coded with | |
| | Click here to specify | |
| Learning Expectations/ | Demonstrate an in-depth knowledge of psychological theories | |
| Outputs | related to individual and group behaviour change. | |
| (6-8 points, visible, measurable and in active voice) | 2. Describe principles related to effective implementation of behaviour change strategies. | |
| , | 3. Design and implementation of evidence-based behaviour change | |
| | interventions. | |
| | 4. Evaluate the effectiveness of behaviour change programs. | |
| | 5. Demonstrate knowledge of research skills relevant to behaviour | |
| | change, including survey design and administration, interview and | |
| | focus group administration, measures of behaviour, and interpretation | |
| | of the data. | |
| | 6. Identify and describe factors that may influence behaviour change | |
| | for specific populations (e.g., rural, remote, Aboriginal). | |
| | 7. Develop the ability to design evidence-based behaviour change | |
| | strategies and intervention programs for specific populations (e.g., | |
| | rural, remote, Aboriginal) | |

Comparative Data (Strongly recommended but not required): Please see $\underline{\text{Appendix A}}$ for comparative data

Please list course numbers and titles. Course descriptions are NOT necessary.

| University | Equivalent Course(s) and Titles | Non-Equivalent but 50% or more overlap |
|-----------------|---------------------------------|--|
| Brock | Click here to enter text. | Click here to enter text. |
| Carelton | Click here to enter text. | Click here to enter text. |
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| Wilfrid Laurier | Click here to enter text. | Click here to enter text. |
| Windsor | Click here to enter text. | Click here to enter text. |
| York | Click here to enter text. | Click here to enter text. |

Statement of Need:

Click here to enter text

Statement of Resources:

MOTION: That the Graduate Studies in Education Committee recommend to Graduate Studies Council the approval of the course KINE 5027 Health Promotion as an elective course in the Masters of Science in Kinesiology Degree.

| Course Code | KINE 5027 | | |
|----------------------------------|--|--|--|
| Course Title | Health Promotion | | |
| Course Prerequisite | This course is restricted to students enrolled in the MSc in Kinesiology | | |
| Course Corequisite | Click here to enter text | | |
| Antirequisite | Click here to enter text | | |
| Total Hours | ☐ 36 hours ☐ 72 hours ☐ Other Click here to specify | | |
| Breakdown of Hours | Choose an item from this drop down menu | | |
| | ☐ Other Click here to specify | | |
| Course Credits | ☐3 credits ☐ 6 credits ☐ Other Click here to specify | | |
| Course Description | Students examine research methods and intervention strategies in | | |
| (Restricted to 50-75 words, | health promotion. Students will explore a variety of research and | | |
| present tense and active voice) | evaluation strategies including both quantitative and qualitative | | |
| | approaches, with an emphasis on developing a critical understanding | | |
| | of the application of different research strategies to answer specific | | |
| | health promotion questions. | | |
| Course Grouping or Stream | Does this course belong to a Group or Stream? | | |
| | No ☐ Yes Click here to specify | | |
| Program Implications | Does this course have program implications? | | |
| | □No □ Yes Click here to specify | | |
| Cross-Listing or Cross-Coding | ☐ Cross-Listed - this course may be credited towards | | |
| | Click here to specify | | |
| | ☐ Cross-Coded - this course is cross-coded with | | |
| | Click here to specify | | |
| Learning Expectations/ | Develop an understanding of the defining characteristics of health | | |
| Outputs | promotion. | | |
| (6-8 points, visible, measurable | 2. Recognize key theories and frameworks influencing the field of | | |
| and in active voice) | health promotion. | | |
| | 3. Develop an understanding of various strategies of health promotion, | | |
| | the theory and principles underlying them and their application. | | |
| | 4. Develop the ability to critically review the evidence on and context of | | |
| | multiple and intersecting social determinants of health leading to | | |
| | health inequalities, and its implications for policy and practice. | | |
| | 5. Develop skills related to the planning, development, implementation | | |
| | and evaluation of health promotion intervention in a variety of | | |
| | populations including Aboriginal peoples and those living in rural and | | |
| | remote environments. | | |

Comparative Data (Strongly recommended but not required): Please see $\underline{\text{Appendix A}}$ for comparative data

Please list course numbers and titles. Course descriptions are NOT necessary.

| University | Equivalent Course(s) and Titles | Non-Equivalent but 50% or more overlap |
|-----------------|---------------------------------|--|
| Brock | Click here to enter text. | Click here to enter text. |
| Carelton | Click here to enter text. | Click here to enter text. |
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| Laurentian | Click here to enter text. | Click here to enter text. |
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| Wilfrid Laurier | Click here to enter text. | Click here to enter text. |
| Windsor | Click here to enter text. | Click here to enter text. |
| York | Click here to enter text. | Click here to enter text. |

Statement of Need:

Click here to enter text

Statement of Resources:

MOTION: That the Graduate Studies in Education Committee recommend to Graduate Studies Council the approval of the course KINE 5036 Behavioural Medicine as an elective course in the Masters of Science in Kinesiology Degree.

| Course Code | KINE 5036 | |
|----------------------------------|--|--|
| Course Title | Behavioural Medicine | |
| Course Prerequisite | This course is restricted to students enrolled in the MSc in Kinesiology | |
| Course Corequisite | Click here to enter text | |
| Antirequisite | Click here to enter text | |
| Total Hours | ☐36 hours ☐ 72 hours ☐ Other Click here to specify | |
| Breakdown of Hours | Choose an item from this drop down menu | |
| | ☐ Other Click here to specify | |
| Course Credits | ☐3 credits ☐ 6 credits ☐ Other Click here to specify | |
| Course Description | Using a bio-psycho-social approach, students will explore the role of | |
| (Restricted to 50-75 words, | health behaviors in the primary prevention and rehabilitation of chronic | |
| present tense and active voice) | disease. A special emphasis will be placed on the research and | |
| | application of behavioural medicine within Northern and rural contexts. | |
| Course Grouping or Stream | Does this course belong to a Group or Stream? | |
| | | |
| Program Implications | Does this course have program implications? | |
| | □No □ Yes Click here to specify | |
| Cross-Listing or Cross-Coding | ☐ Cross-Listed - this course may be credited towards | |
| | Click here to specify | |
| | ☐ Cross-Coded - this course is cross-coded with | |
| | Click here to specify | |
| Learning Expectations/ | Demonstrate knowledge of the relationship between health | |
| Outputs | behaviours and the development of chronic disease. | |
| (6-8 points, visible, measurable | 2. Describe the role of health behaviours as a means of improving | |
| and in active voice) | symptoms and prognosis in various chronic disease populations. | |
| | 3. Formulate and evaluate health behaviour change strategies for | |
| | reducing risk of chronic disease in Northern and rural populations. | |
| | 4. Create and evaluate supportive care strategies for chronic disease | |
| | populations that rely on making changes in relevant health behaviours | |
| | within a Northern and rural context. | |

Comparative Data (Strongly recommended but not required): Please see $\underline{\text{Appendix A}}$ for comparative data

Please list course numbers and titles. Course descriptions are NOT necessary.

| University | Equivalent Course(s) and Titles | Non-Equivalent but 50% or more |
|-----------------|---------------------------------|--------------------------------|
| | | overlap |
| Brock | Click here to enter text. | Click here to enter text. |
| Carelton | Click here to enter text. | Click here to enter text. |
| Guelph | Click here to enter text. | Click here to enter text. |
| Lakehead | Click here to enter text. | Click here to enter text. |
| Laurentian | Click here to enter text. | Click here to enter text. |
| McMaster | Click here to enter text. | Click here to enter text. |
| OCAD | Click here to enter text. | Click here to enter text. |
| Ottawa | Click here to enter text. | Click here to enter text. |
| Queen's | Click here to enter text. | Click here to enter text. |
| Toronto | Click here to enter text. | Click here to enter text. |
| Trent | Click here to enter text. | Click here to enter text. |
| Waterloo | Click here to enter text. | Click here to enter text. |
| Western | Click here to enter text. | Click here to enter text. |
| Wilfrid Laurier | Click here to enter text. | Click here to enter text. |
| Windsor | Click here to enter text. | Click here to enter text. |
| York | Click here to enter text. | Click here to enter text. |

Statement of Need:

Click here to enter text

Statement of Resources:

MOTION: That the Graduate Studies in Education Committee recommend to Graduate Studies Council the approval of the course KINE 5037 Advanced Cardiovascular and Environmental Exercise Physiology as an elective course in the Masters of Science in Kinesiology Degree.

| Course Code | KINE 5037 | |
|----------------------------------|--|--|
| Course Title | Advanced Cardiovascular and Environmental Exercise Physiology | |
| Course Prerequisite | This course is restricted to students enrolled in the MSc in Kinesiology | |
| Course Corequisite | Click here to enter text | |
| Antirequisite | Click here to enter text | |
| Total Hours | ☐ 36 hours ☐ 72 hours ☐ Other Click here to specify | |
| Breakdown of Hours | Choose an item from this drop down menu | |
| | ☐ Other Click here to specify | |
| Course Credits | ☐ 3 credits ☐ 6 credits ☐ Other Click here to specify | |
| Course Description | Students examine the integration and control of the muscle metabolic, | |
| (Restricted to 50-75 words, | cardiovascular, and respiratory systems during exercise with emphasis | |
| present tense and active voice) | on how these systems adapt to environmental stress. Current interests | |
| , | in environmental exercise physiology related to the Northeastern | |
| | Ontario region (e.g. extreme climates, natural resource workers) are | |
| | explored. | |
| Course Grouping or Stream | Does this course belong to a Group or Stream? | |
| | No ☐ Yes Click here to specify | |
| Program Implications | Does this course have program implications? | |
| | □ No □ Yes Click here to specify | |
| Cross-Listing or Cross-Coding | ☐ Cross-Listed - this course may be credited towards | |
| | Click here to specify | |
| | ☐ Cross-Coded - this course is cross-coded with | |
| | Click here to specify | |
| Learning Expectations/ | Demonstrate integrated knowledge of the muscle metabolic and | |
| Outputs | cardiovascular, and respiratory systems and their control. | |
| (6-8 points, visible, measurable | 2. Describe the movement of oxygen from the atmosphere to the | |
| and in active voice) | muscle mitochondria, and discus the influences of blood flow to and its | |
| | distribution within muscle, blood pressure control, oxygen carriage and | |
| | delivery, muscle oxygen uptake and utilization, and their role in | |
| | exercise performance and fatigue. | |
| | Demonstrate knowledge of the range of environmental conditions | |
| | persons may experience. | |
| | 4. Demonstrate knowledge of how the human body responds to | |
| | extreme environmental conditions, both acute and chronic exposures, | |
| | and their effects upon the exercise response. | |
| | 5. Demonstrate a familiarization with strategies to minimize detrimental | |
| | effects of environmental stress. | |
| | Demonstrate competency in research skills common to | |
| | environmental exercise physiology investigation. | |
| | 7. Demonstrate familiarization with current interests in environmental | |
| | exercise physiology related to the Northeastern Ontario region (e.g. | |
| | mine workers, natural resource workers, outdoor survival, etc). | |

Comparative Data (Strongly recommended but not required): Please see Appendix A for comparative data

Please list course numbers and titles. Course descriptions are NOT necessary.

| University | Equivalent Course(s) and Titles | Non-Equivalent but 50% or more overlap |
|-----------------|---------------------------------|--|
| Brock | Click here to enter text. | Click here to enter text. |
| Carelton | Click here to enter text. | Click here to enter text. |
| Guelph | Click here to enter text. | Click here to enter text. |
| Lakehead | Click here to enter text. | Click here to enter text. |
| Laurentian | Click here to enter text. | Click here to enter text. |
| McMaster | Click here to enter text. | Click here to enter text. |
| OCAD | Click here to enter text. | Click here to enter text. |
| Ottawa | Click here to enter text. | Click here to enter text. |
| Queen's | Click here to enter text. | Click here to enter text. |
| Toronto | Click here to enter text. | Click here to enter text. |
| Trent | Click here to enter text. | Click here to enter text. |
| Waterloo | Click here to enter text. | Click here to enter text. |
| Western | Click here to enter text. | Click here to enter text. |
| Wilfrid Laurier | Click here to enter text. | Click here to enter text. |
| Windsor | Click here to enter text. | Click here to enter text. |
| York | Click here to enter text. | Click here to enter text. |

Statement of Need:

Click here to enter text

Statement of Resources:

Click here to enter text

MOTION: That the Graduate Studies in Education Committee recommend to Graduate Studies Council the approval of the course KINE 5106 Special Topics in Kinesiology as an elective course in the Masters of Science in Kinesiology Degree.

| Course Code | KINE 5106 | |
|---------------------------------|--|--|
| Course Title | Special Topics in Kinesiology | |
| Course Prerequisite | This course is restricted to students enrolled in the MSc in Kinesiology | |
| Course Corequisite | Click here to enter text | |
| Antirequisite | Click here to enter text | |
| Total Hours | ☐ 36 hours ☐ 72 hours ☐ Other Click here to specify | |
| Breakdown of Hours | Choose an item from this drop down menu | |
| | ☐ Other Click here to specify | |
| Course Credits | ☐ 3 credits ☐ 6 credits ☐ Other Click here to specify | |
| Course Description | Students will engage in an in-depth examination of an advanced topic | |
| (Restricted to 50-75 words, | within the field of Kinesiology. Course availability is based on student | |
| present tense and active voice) | demand and the availability of the instructor. This course can only be | |
| | taken once. | |
| | | |
| | *Note that the course description and learner outcomes will change | |
| | depending on the instructor and their area of expertise (e.g., Motor | |
| | Control, Biomechanics, Psychology & Health Promotion, or | |
| | Physiology). | |

| | Examples: KINE 5106 (as Clinical Exercise Physiology): Students learn and conduct safe and scientific exercise evaluations and prescriptions across the human lifespan in healthy and diseased populations, and demonstrate an understanding of the physiological basis for those procedures. Emphasis is placed upon current issues in the Northeastern Ontario region (e.g. diabetes, obesity, remote access, and Aboriginal populations). KINE 5106 (as Neurological Dysfunction and Movement Behaviour): |
|--|---|
| | Students examine various congenital and adventitious physical and mental challenges as they relate to the learning and control of voluntary movements. Students engage in a neural-psychological approach to movement pathology. |
| Course Grouping or Stream | Does this course belong to a Group or Stream? ☐ No ☐ Yes Click here to specify |
| Program Implications | Does this course have program implications? □ No □ Yes Click here to specify |
| Cross-Listing or Cross-Coding | ☐ Cross-Listed - this course may be credited towards |
| | Click here to specify Cross-Coded - this course is cross-coded with Click here to specify |
| Learning Expectations/ Outputs (6-8 points, visible, measurable and in active voice) | (Examples only): KINE 5106 (as Clinical Exercise Physiology): 1. Demonstrate a thorough understanding of the pathophysiology, and role of exercise in the management of, endocrine and metabolic disorders, cardiovascular and respiratory diseases, cancer, diseases of the immune system, disorders of the bone and joints, and neuromuscular disorders. 2. Describe and defend basic exercise prescription principles for all elements of health-related physical fitness (e.g., cardiorespiratory endurance, muscular endurance, muscular strength, flexibility, and body composition). 3. With reference to adherence issues, develop comprehensive exercise programming for special populations with endocrine and metabolic disorders, cardiovascular diseases, diseases of the respiratory system, cancer, diseases of the immune system, disorders of the bone and joints, and neuromuscular disorders. 4. Analyze acute and chronic physiological responses to exercise, as well as exercise adherence issues and apply this knowledge to construct prudent exercise programming for healthy and diseased populations. 5. Analyze how side-effects of common medications and surgical treatments for selected conditions/diseases may affect exercise tolerance, safety, and adherence. 6. Evaluate a person's physical and mental capacity for exercise based on medical history, exercise test results, personal characteristics, and social/ financial/environmental support. 7. Formulate reasonable fitness/health goals and design an effective exercise plan (and assist with an effective lifestyle plan) to meet such goals. 8. Conduct safe and scientific exercise evaluations and demonstrate an understanding of the physiological basis for those procedures. |

9. Demonstrate knowledge of the use of blood pressure, electrocardiography, and pulmonary function measurement during exercise and the interpretation of these measurements.

KINE 5106 (as Neurological Dysfunction and Movement Behaviour): Demonstrate a thorough understanding of the pathophysiology of various special populations who have cognitive disorders and physical challenges resulting from deficits of the nervous system.

- 2. Develop an understanding of the limitations of the human neural-movement system in performing skilled actions when it is compromised by disease or disorders.
- 3. Evaluate the effectiveness of instructional paradigms used to teach individuals with physical and mental challenges and critically analyse the environmental conditions leading to the superior acquisition and retention of movement skills.
- 4. Demonstrate an understanding and the ability to effectively manipulate the conditions that produce efficient acquisition, maintenance, and re-acquisition of skilled actions when the learner's nervous system is compromised by disease or disorders.
- 5. Acquire a functional competence employing common neuralpsychological assessment tools used in applied behavioural analysis and atypical human movement behaviour.
- 6. Demonstrate the ability to properly collect, analyse, and interpret movement data from atypical behaviours performed by individuals with physical and mental challenges.
- 7. Develop an understanding of the prevalence of the disorders and the efficacy of the delivery of services for individuals living within the Northeastern Ontario region.

Comparative Data (Strongly recommended but not required): Please see Appendix A for comparative data

Please list course numbers and titles. Course descriptions are NOT necessary.

| University | Equivalent Course(s) and Titles | Non-Equivalent but 50% or more |
|-----------------|---------------------------------|--------------------------------|
| | | overlap |
| Brock | Click here to enter text. | Click here to enter text. |
| Carelton | Click here to enter text. | Click here to enter text. |
| Guelph | Click here to enter text. | Click here to enter text. |
| Lakehead | Click here to enter text. | Click here to enter text. |
| Laurentian | Click here to enter text. | Click here to enter text. |
| McMaster | Click here to enter text. | Click here to enter text. |
| OCAD | Click here to enter text. | Click here to enter text. |
| Ottawa | Click here to enter text. | Click here to enter text. |
| Queen's | Click here to enter text. | Click here to enter text. |
| Toronto | Click here to enter text. | Click here to enter text. |
| Trent | Click here to enter text. | Click here to enter text. |
| Waterloo | Click here to enter text. | Click here to enter text. |
| Western | Click here to enter text. | Click here to enter text. |
| Wilfrid Laurier | Click here to enter text. | Click here to enter text. |
| Windsor | Click here to enter text. | Click here to enter text. |
| York | Click here to enter text. | Click here to enter text. |

Statement of Need:

Statement of Resources: Click here to enter text

MOTION: That the Graduate Studies in Education Committee recommend to Graduate Studies Council the approval of the course KINE 5046 Independent Research Project in Selected Topics as an elective course in the Masters of Science in Kinesiology Degree.

| Course Code | KINE 5046 | | |
|----------------------------------|---|--|--|
| Course Title | Independent Research Project in Selected Topics | | |
| Course Prerequisite | This course is restricted to students enrolled in the MSc in Kinesiology | | |
| Course Corequisite | Click here to enter text | | |
| Antirequisite | Click here to enter text | | |
| Total Hours | ☐ 36 hours ☐ 72 hours ☐ Other Click here to specify | | |
| Breakdown of Hours | Choose an item from this drop down menu | | |
| | ☐ Other Click here to specify | | |
| Course Credits | ☐ 3 credits ☐ 6 credits ☐ Other Click here to specify | | |
| Course Description | In consultation with their faculty supervisor, students complete a | | |
| (Restricted to 50-75 words, | research project on a topic related to their area of specialization. This | | |
| present tense and active voice) | course can only be taken once. | | |
| Course Grouping or Stream | Does this course belong to a Group or Stream? | | |
| | ☐ No ☐ Yes Click here to specify | | |
| Program Implications | Does this course have program implications? | | |
| | ☐ No ☐ Yes Click here to specify | | |
| Cross-Listing or Cross-Coding | ☐ Cross-Listed - this course may be credited towards | | |
| | Click here to specify | | |
| | ☐ Cross-Coded - this course is cross-coded with | | |
| | Click here to specify | | |
| Learning Expectations/ | Demonstrate an ability to design, conduct, and analyse data from | | |
| Outputs | an in-situ experiment involving human participants or data acquired | | |
| (6-8 points, visible, measurable | from human participants. | | |
| and in active voice) | 2. Demonstrate a high level of proficiency employing the equipment or | | |
| | assessment tool that records the main dependent variable of interest | | |
| | and develop an advanced understanding of the theoretical issues | | |
| | contributing to the validity and reliability of the assessment tool. | | |
| | Apply an understanding of ethical issues involving human | | |
| | participants to the design of kinesiology based research. | | |
| | Acquire a functional competence in conducting literature reviews | | |
| | and in the application of a standardized set of guidelines for | | |
| | publication such as those produced by the American Psychological | | |
| | Association. | | |
| | 5. Demonstrate an understanding of the publication process leading to | | |
| | the dissemination of the experimental results in a peer-reviewed | | |
| | outlet. | | |

Comparative Data (Strongly recommended but not required): Please see $\underline{\text{Appendix A}}$ for comparative data

Please list course numbers and titles. Course descriptions are NOT necessary.

| University | Equivalent Course(s) and Titles | Non-Equivalent but 50% or more overlap |
|-----------------|---------------------------------|--|
| Brock | Click here to enter text. | Click here to enter text. |
| Carelton | Click here to enter text. | Click here to enter text. |
| Guelph | Click here to enter text. | Click here to enter text. |
| Lakehead | Click here to enter text. | Click here to enter text. |
| Laurentian | Click here to enter text. | Click here to enter text. |
| McMaster | Click here to enter text. | Click here to enter text. |
| OCAD | Click here to enter text. | Click here to enter text. |
| Ottawa | Click here to enter text. | Click here to enter text. |
| Queen's | Click here to enter text. | Click here to enter text. |
| Toronto | Click here to enter text. | Click here to enter text. |
| Trent | Click here to enter text. | Click here to enter text. |
| Waterloo | Click here to enter text. | Click here to enter text. |
| Western | Click here to enter text. | Click here to enter text. |
| Wilfrid Laurier | Click here to enter text. | Click here to enter text. |
| Windsor | Click here to enter text. | Click here to enter text. |
| York | Click here to enter text. | Click here to enter text. |

Statement of Need:

Click here to enter text

Statement of Resources:

MOTION: That the Graduate Studies in Education Committee recommend to Graduate Studies Council the approval of the course KINE 5047 Directed Readings in Kinesiology as an elective course in the Masters of Science in Kinesiology Degree.

| Course Code | KINE 5047 | |
|----------------------------------|--|--|
| Course Title | Directed Readings in Kinesiology | |
| Course Prerequisite | This course is restricted to students enrolled in the MSc in Kinesiology | |
| Course Corequisite | Click here to enter text | |
| Antirequisite | Click here to enter text | |
| Total Hours | ☐ 36 hours ☐ 72 hours ☐ Other Click here to specify | |
| Breakdown of Hours | Choose an item from this drop down menu | |
| | ☐ Other Click here to specify | |
| Course Credits | ☐ 3 credits ☐ 6 credits ☐ Other Click here to specify | |
| Course Description | Students complete a directed individual or group reading in a topic | |
| (Restricted to 50-75 words, | area relating to their area of specialization. This course can only be | |
| present tense and active voice) | taken once. | |
| Course Grouping or Stream | Does this course belong to a Group or Stream? | |
| | No ☐ Yes Click here to specify | |
| Program Implications | Does this course have program implications? | |
| | ☐ No ☐ Yes Click here to specify | |
| Cross-Listing or Cross-Coding | ☐ Cross-Listed - this course may be credited towards | |
| | Click here to specify | |
| | ☐ Cross-Coded - this course is cross-coded with | |
| | Click here to specify | |
| Learning Expectations/ | Acquire a functional competence in conducting literature reviews | |
| Outputs | and in the application of a standardized set of guidelines for | |
| (6-8 points, visible, measurable | , | |
| and in active voice) | Association. | |
| | Demonstrate the ability to synthesize and present information | |
| | acquired throughout the literature review process. | |
| | 3. Demonstrate the ability to create fundamental research questions | |
| | related to the topic of interest. | |
| | 4. Evaluate the application of theoretical frameworks related to the | |
| | topic area to the body of literature that is investigated. | |

Comparative Data (Strongly recommended but not required): Please see $\underline{\text{Appendix A}}$ for comparative data

Please list course numbers and titles. Course descriptions are NOT necessary.

| University | Equivalent Course(s) and Titles | Non-Equivalent but 50% or more overlap |
|-----------------|---------------------------------|--|
| Brock | Click here to enter text. | Click here to enter text. |
| Carelton | Click here to enter text. | Click here to enter text. |
| Guelph | Click here to enter text. | Click here to enter text. |
| Lakehead | Click here to enter text. | Click here to enter text. |
| Laurentian | Click here to enter text. | Click here to enter text. |
| McMaster | Click here to enter text. | Click here to enter text. |
| OCAD | Click here to enter text. | Click here to enter text. |
| Ottawa | Click here to enter text. | Click here to enter text. |
| Queen's | Click here to enter text. | Click here to enter text. |
| Toronto | Click here to enter text. | Click here to enter text. |
| Trent | Click here to enter text. | Click here to enter text. |
| Waterloo | Click here to enter text. | Click here to enter text. |
| Western | Click here to enter text. | Click here to enter text. |
| Wilfrid Laurier | Click here to enter text. | Click here to enter text. |
| Windsor | Click here to enter text. | Click here to enter text. |
| York | Click here to enter text. | Click here to enter text. |

Statement of Need:

Click here to enter text

Statement of Resources:

MOTION: That the Graduate Studies in Education Committee recommend to Graduate Studies Council the approval of the course KINE 5206 Integrative Seminar in Kinesiology as a required course in the Masters of Science in Kinesiology Degree.

| 0 0 1 | | |
|----------------------------------|--|--|
| Course Code | KINE 5206 | |
| Course Title | Integrative Seminar in Kinesiology | |
| Course Prerequisite | This course is restricted to students enrolled in the MSc in Kinesiology | |
| Course Corequisite | Click here to enter text | |
| Antirequisite | Click here to enter text | |
| Total Hours | ☐ 36 hours ☐ 72 hours ☐ Other Click here to specify | |
| Breakdown of Hours | Choose an item from this drop down menu | |
| | ☐ Other Click here to specify | |
| Course Credits | ☐ 3 credits ☐ 6 credits ☐ Other Click here to specify | |
| Course Description | Students will be introduced to research within the field of Kinesiology | |
| (Restricted to 50-75 words, | and provided with a forum for interacting about research production | |
| present tense and active voice) | and writing. Content will reflect the program's theme of Kinesiology | |
| | within Aboriginal and rural populations with an emphasis on a Northern | |
| | context. | |
| Course Grouping or Stream | Does this course belong to a Group or Stream? | |
| | No ☐ Yes Click here to specify | |
| Program Implications | Does this course have program implications? | |
| | □ No □ Yo | |
| | partial-fulfillment of their degree requirements | |
| Cross-Listing or Cross-Coding | ☐ Cross-Listed - this course may be credited towards | |
| | Click here to specify | |
| | ☐ Cross-Coded - this course is cross-coded with | |
| | Click here to specify | |
| Learning Expectations/ | Acquire a better understanding of research relevant to Northern | |
| Outputs | Aboriginal and Rural populations from a variety of sub-disciplines | |
| (6-8 points, visible, measurable | within the field of Kinesiology. | |
| and in active voice) | Develop and refine formal oral presentation skills. | |
| | 3. Demonstrate the ability to read and critically analyze academic | |
| | research articles. | |
| | 4. Develop skills for orally discussing and debating topics relevant to | |
| | Kinesiology and research. | |

Comparative Data (Strongly recommended but not required): Please see $\underline{\text{Appendix A}}$ for comparative data

Please list course numbers and titles. Course descriptions are NOT necessary.

| University | Equivalent Course(s) and Titles | Non-Equivalent but 50% or more overlap |
|-----------------|---------------------------------|--|
| Brock | Click here to enter text. | Click here to enter text. |
| Carelton | Click here to enter text. | Click here to enter text. |
| Guelph | Click here to enter text. | Click here to enter text. |
| Lakehead | Click here to enter text. | Click here to enter text. |
| Laurentian | Click here to enter text. | Click here to enter text. |
| McMaster | Click here to enter text. | Click here to enter text. |
| OCAD | Click here to enter text. | Click here to enter text. |
| Ottawa | Click here to enter text. | Click here to enter text. |
| Queen's | Click here to enter text. | Click here to enter text. |
| Toronto | Click here to enter text. | Click here to enter text. |
| Trent | Click here to enter text. | Click here to enter text. |
| Waterloo | Click here to enter text. | Click here to enter text. |
| Western | Click here to enter text. | Click here to enter text. |
| Wilfrid Laurier | Click here to enter text. | Click here to enter text. |
| Windsor | Click here to enter text. | Click here to enter text. |
| York | Click here to enter text. | Click here to enter text. |

Statement of Need:

Click here to enter text

Statement of Resources:

MOTION: That the Graduate Studies in Education Committee recommend to Graduate Studies Council the approval of the course KINE 5453 Research Thesis as a required course in the Masters of Science in Kinesiology

| Course Code | KINE 5453 |
|----------------------------------|---|
| Course Title | Research Thesis |
| Course Prerequisite | This course is restricted to students enrolled in the MSc in Kinesiology |
| | Successful completion of KINE 5006, KINE 5007, & KINE 5206. |
| Course Corequisite | Click here to enter text |
| Antirequisite | Click here to enter text |
| Total Hours | □ 36 hours □ 72 hours □ Other N/A |
| Breakdown of Hours | Choose an item from this drop down menu |
| | ☐ Other Click here to specify |
| Course Credits | □ 3 credits □ 6 credits □ Other 18 credits |
| Course Description | Students create and complete a research project under the |
| (Restricted to 50-75 words, | supervision of their faculty advisor. Students construct a written thesis |
| present tense and active voice) | document and defend their research at an oral defence. |
| Course Grouping or Stream | Does this course belong to a Group or Stream? |
| | No ☐ Yes Click here to specify |
| Program Implications | Does this course have program implications? |
| | □ No □ Yo |
| | partial-fulfillment of their degree requirements |
| Cross-Listing or Cross-Coding | ☐ Cross-Listed - this course may be credited towards |
| | Click here to specify |
| | ☐ Cross-Coded - this course is cross-coded with |
| | Click here to specify |
| Learning Expectations/ | Demonstrate the ability to create and complete a research program |
| Outputs | involving human participants under the supervision of a faculty advisor |
| (6-8 points, visible, measurable | 2. Construct a thesis proposal and written thesis document. |
| and in active voice) | 3. Implement an oral defense of thesis research. |
| | 4. Acquire competence in conducting literature reviews and in the |
| | application of a standardized set of guidelines for publication |
| | 5. Synthesize and present research information in oral and written |
| | formats. |
| | 6. Demonstrate the ability to create fundamental research questions |
| | related to the topic of interest. |
| | 7. Implement skills in research methods and statistics in the design, |
| | conduct, and analysis of data from an in-situ experiment involving |
| | human participants or data acquired from human participants. |
| | 8. Apply an understanding of ethical issues involving human |
| | participants to kinesiology-based research. |
| | 9. Demonstrate a high level of proficiency employing the equipment or |
| | assessment tool that records the main dependent variable of interest 10. Develop an advanced understanding of the theoretical |
| | , |
| | underpinnings of the research topic. |

Comparative Data (Strongly recommended but not required): Please see Appendix A for comparative data

Please list course numbers and titles. Course descriptions are NOT necessary.

| University | Equivalent Course(s) and Titles | Non-Equivalent but 50% or more overlap |
|-----------------|---------------------------------|--|
| Brock | Click here to enter text. | Click here to enter text. |
| Carelton | Click here to enter text. | Click here to enter text. |
| Guelph | Click here to enter text. | Click here to enter text. |
| Lakehead | Click here to enter text. | Click here to enter text. |
| Laurentian | Click here to enter text. | Click here to enter text. |
| McMaster | Click here to enter text. | Click here to enter text. |
| OCAD | Click here to enter text. | Click here to enter text. |
| Ottawa | Click here to enter text. | Click here to enter text. |
| Queen's | Click here to enter text. | Click here to enter text. |
| Toronto | Click here to enter text. | Click here to enter text. |
| Trent | Click here to enter text. | Click here to enter text. |
| Waterloo | Click here to enter text. | Click here to enter text. |
| Western | Click here to enter text. | Click here to enter text. |
| Wilfrid Laurier | Click here to enter text. | Click here to enter text. |
| Windsor | Click here to enter text. | Click here to enter text. |
| York | Click here to enter text. | Click here to enter text. |

Statement of Need:

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Statement of Resources:

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<u>Appendix A:</u> Comparative Data by University

KINE 5006: Research Methods in Kinesiology

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|---------------|-----|--------|---|
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| $\overline{}$ | 1() | (- | ĸ |

| | אטטוכ | | |
|---|---------|--|---|
| | | AHSC 5P38: Research Design for Social Research AHSC 5P80: Measurement of Physical Activity AHSC 5P94: Measurement Issues in Applied Health Sciences Research | 50% overlap 50% overlap 50% overlap |
| ı | akehe | • • | 0070 0 VC11ap |
| - | anone | KIN 5016 Research Methods and Design | Equivalent |
| ı | .auren | <u> </u> | Equivalent |
| | adicii | PHED 5126: Research Methods in Human Kinetics | Equivalent |
| L | .aurier | | |
| | | KP620 Statistical Reasoning and Advanced Experimental Analysis | 50% overlap |
| Ν | /lcMas | ter | |
| | | Kinesiol 701: Statistical Methods in Kinesiology | 50% overlap |
| (| Ottawa | | - |
| | | APA 6303: Quantitative research methods in Sport, P.A., & Health | 50% overlap |
| | | APA 6302: Qualitative research methods in Sport, P.A., & Health | 50% overlap |
| ٦ | oronto | | • |
| | | EXS 5515H Research Methods in Physical Activity and Health | Equivalent |
| ι | JOIT | · | · |
| | | HLSC 5016G Research in the Health Sciences | Equivalent |
| ι | JWO | | • |
| | | KIN 9411 Introduction to Research | 50% overlap |
| | | | |

| Waterlo | | |
|-----------------|--|--|
| watenc | KIN 631A Introduction to Statistics KIN 631E Analysis of Variance I | 50% overlap 50% overlap |
| Windso | or 95-507 Quantitative Analysis in Kinesiology | 50% overlap |
| York | KAHS 6030 Qualitative Research Methods | 50% overlap |
| KINE 5 Brock | 007: Statistics in Kinesiology | |
| 2.00. | AHSC 5P17: Qualitative Data Analysis and Interpretation AHSC 5P27: Biostatistics in Applied Health Sciences Research AHSC 5P37: Quantitative Data Analysis and Interpretation: ANOVA AHSC 5P47: Quantitative Data Analysis and Interpretation: Regression AHSC 5P57: Quantitative Data Analysis and Interpretation | 50% overlap 50% overlap 50% overlap 50% overlap Equivalent |
| Lakehe | ad | |
| Laurent | KIN 5011 Statistical Analysis in Kinesiology tian | Equivalent |
| | PHED 5136: Qualitative measurement methods PHED 5146: Quantitative measurement methods | 50% overlap 50% overlap |
| Laurier | KP620 Statistical Reasoning and Advanced Experimental Analysis | 50% overlap |
| McMas | Kinesiol 701: Statistical Methods in Kinesiology | 50% overlap |
| Ottawa | APA 6100: Quantitative data analysis in sport, P.A., and health APA 6101: Qualitative data analysis in sport, P.A., and health | 50% overlap 50% overlap |
| Queen' | s KHS 891 Statistics | 50% overlap |
| LIOIT | KHS 894 Applied Multivariate Data Analysis | 50% overlap |
| UOIT | HLSC 5118G Applied Biostatistics in Health Sciences | 50% overlap |
| Waterlo | KIN 9411 Introduction to Research | 50% overlap |
| vacone | KIN 631A Introduction to Statistics KIN 631E Analysis of Variance I | 50% overlap 50% overlap |
| Windso | r | 500/ averton |
| York | 95-507 Quantitative Analysis in Kinesiology | 50% overlap |
| | KAHS 6010 Univariate Analysis and Design KAHS 6020 Multivariate Analysis and Design | 50% overlap 50% overlap |
| KINE 5 | 016: Sensory-Movement Behaviour | |
| DIOCK | None | |
| Lakehe | ad KIN 5170 Seminar in Motor Control | E00/ overlan |
| Laurier | KIN 5170 Seminar in Motor Control | 50% overlap |
| McMas | None | |
| IVICIVIAS | Kinesiol 705: Motor Behaviour Kinesiol 711: Motor Control | 50% overlap 50% overlap |
| Toronto | EXS 5514H Human Sensory and Motor Neurophysiology EXS 5505H Neuromotor Behaviour: Sensory Information Utilization | 50% overlap 50% overlap |

| UOIT | | |
|--|---|---|
| UWO | HLSC 5320G Neuroscience in Rehabilitation Kinesiology | |
| Waterle | KIN 9248 Sensorimotor Neuroscience | 50% overlap |
| | KIN 616 Neural Control of Movement KIN 651 Motor Learning KIN 652 Movement Control and Learning | 50% overlap 50% overlap 50% overlap |
| Windso York | 95-525 Motor Skill Acquisition 95-526 Motor Control of Human Performance | 50% overlap 50% overlap |
| . • | KAHS 6161 Perception and Action KAHS 6152 Shaping Action: The Role of Sensory Info. in Motor Learning | 50% overlap 50% overlap |
| KINE 5 | 017: Biomechanics and Ergonomics | |
| | AHSC 5P93: Neural Control of Posture, Balance, and Gait | 50% overlap |
| Lakehe | ead KIN 5453 Advanced Biomechanics | 50% overlap |
| Laurier | KP650 Biophysical Foundations of Physical Activity and Health | 50% overlap |
| McMas | ster Kinesiol 708: Biomechanics Kinesiol 718: Human Factors Kinesiol 722: Advances in Biomechanics and Electromyography | 50% overlap 50% overlap 50% overlap |
| Queen | 's KHS-853 Physical Bases of Ergonomics KHS-859 Biomechanics of Human Movement | 50% overlap 50% overlap |
| Toronto | o EXS 5525H Quantitative Motion Analysis | 50% overlap |
| UWO | None | |
| Waterlo | | EOO/ overlan |
| | KIN 611 Biomechanics of Human Motion KIN 613 Modern Methods in Biomechanical Modeling, Kinematics & Kinetics KIN 620 Ergonomic Aspects of Occupational Musculoskeletal Injuries | 50% overlap 50% overlap 50% overlap |
| Windso | or 95-523 Applied Biomechanics of Human Performance 95-524 Biomechanics in the Work Place | 50% overlap 50% overlap |
| York | KAHS 6381 Biomechanics of Human Movement in Health and Disease KAHS 6382 Biomechanics and Motor Control of Posture, Balance and Gait | 50% overlap 50% overlap |
| | 026: Sport, Exercise, and Performance Psychology | |
| Brock | AHSC 5P99: Psychological Approaches to Health Behaviour Change AHSC 5P85: Body-Related Concerns in Health and Physical Activity Settings | 50% overlap 50% overlap |
| Lakehe | ead KIN 5036 Psychology of Physical Activity | 50% overlap |
| Laurier | · · · · · · · · · · · · · · · · · · · | • |
| McMaster Kinesiol 715: Foundations of Health and Exercise Psychology 50% overl | | |
| Ottawa | 1 | 50% overlap |
| | APA 5309: Performance enhancement, quality living and mental training | 50% overlap |

| APA 5106: Mental skills and approaches in sport, P.A. and health | 50% overlap |
|--|--|
| Queen's KHS-864 Advanced Topics in Sport Psychology KHS-872 Health Behaviour Change | 50% overlap 50% overlap |
| Toronto EXS 5516H Exercise Psychology UWO | 50% overlap |
| KIN 9230A Psychological Interventions KIN 9231B Selected Topics in Exercise Psychology | 50% overlap 50% overlap |
| Waterloo KIN 625 The Social Psychology of Sport and Motor Performance | Equivalent |
| Windsor 95-504 Advanced Topics in the Psychology of Sport & Exercise | Equivalent |
| York KAHS 6440 Current Issues in the Psychology of Skilled Performance KAHS 6455 Advanced Topics in Sport and Exercise Psychology | 50% overlap 50% overlap |
| KINE 5027: Health Promotion | |
| Brock AHSC 5P39: Strengths-Based Facilitation Techniques AHSC 5P40: Interventions in Physical Activity and Health AHSC 5P11: Theory and Practice of Health Program Planning and Evaluation AHSC 5P36: Youth Culture, Leisure and Sport Engagement Lakehead | 50% overlap 50% overlap 50% overlap 50% overlap |
| none Laurier | |
| none McMaster None | |
| Ottawa APA 5311: Analysis and enhancement of interventions in sport, PA and | 50% overlap |
| Queen's KHS-830 Health Promotion Research Seminar | 50% overlap |
| Toronto JXP 5807H Health Communications | 50% overlap |
| UOIT HLSC 5124G Public Health in Canada HLSC 5113G Strategies in Health Promotion Practice | 50% overlap 50% overlap |
| UWO None | |
| Waterloo None | |
| Windsor None | |
| York KAHS 6143 Current Issues in Health Psychology | 50% overlap |
| KINE 5036: Behavioural Medicine | |
| Brock AHSC 5P89: Current Topics in Infection and Immunity | 50% overlap |
| Lakehead KIN 5131 Sports Medicine and Rehabilitation | 50% overlap |
| Laurier none | · |
| McMaster Kinesiol717: Exercise Psychology: Applications to Chronic Dis. and Disability | 50% overlap |

| Kinesiol720: Social and Psychobiological Factors in Health and Ex. Psych. | 50% overlap |
|---|----------------------------|
| Ottawa APA 5107: Counselling skills and approaches in sport, P.A., and health | 50% overlap |
| Queen's KHS-886 Clinical Exercise Science | 50% overlap |
| UWO KIN 9445B Medical Aspects of Sport | 50% overlap |
| Waterloo KIN 606 Molecular Basis of Disease | 50% overlap |
| KIN 606 Integrative Energy Metabolism in Health and Disease | 50% overlap |
| Windsor 95-528 Neuromuscular Physiology | 50% overlap |
| York KAHS 6144 Behavioral Cardiology and Cardiac Rehabilitation | 50% overlap |
| KINE 5037: Advanced Cardiovascular and Environmental Physiology | |
| AHSC 5P81: Research Topics in Cardiovascular Regulation and Adaptation AHSC 5P91: Physiological Responses to Adverse Environments | 50% overlap 50% overlap |
| Lakehead KIN 5052 Exercise Physiology for Human Performance KIN 5110 Advanced Clinical Exercise Physiology | 50% overlap 50% overlap |
| Laurier KP650 Biophysical Foundations of Physical Activity and Health | 50% overlap |
| McMaster Kinesiol 704: Cardiovascular Regulation in Exercise Kinesiol 712: Skeletal Muscle Metabolism | 50% overlap 50% overlap |
| Ottawa APA 7304: Advanced Exercise Metabolism and Physiology | 50% overlap |
| Queen's KHS-885 Oxygen Transport in Exercise: Cardiovascular and Respiratory | 50% overlap |
| Toronto EXS 5530H Extreme Human Physiology | 50% overlap |
| UWO KIN 9430 Neuromuscular Function and Metabolism | 50% overlap |
| Waterloo | · |
| KIN 602 Respiratory and Cardiovascular Physiology Windsor | 50% overlap |
| 95-527 Physiological Responses to Human Movement Demands York | 50% overlap |
| KAHS 6300 Cardiovascular Systems in Health and Exercise | 50% overlap |
| KINE 5106: Special Topics in Kinesiology Brock | |
| AHSC 5V20-5V29: Selected Research Topics Lakehead | Equivalent |
| KIN 5453 Special Topics Laurentian | Equivalent |
| PHED 5406 Current topics in human kinetics I PHED 5407 Current topics in human kinetics II | 50% overlap 50% overlap |
| Laurier none | |
| McMaster None | |
| Ottawa APA 6901: Selected topics in sport, P.A., and health: physiological studies | 50% overlap |

APA 6903: Selected topics in sport, P.A., and health: Biomechanics 50% overlap APA 6905: Selected topics: Sport psychology 50% overlap APA 6909: Selected topics: Motor Control and learning 50% overlap Queen's KHS-887 Special Topics I Equivalent KHS-892 Special Topics II Equivalent KHS-896 Special Topics III Equivalent Toronto EXS 7001H Directed Reading in Exercise Sciences 50% overlap **UOIT** HLSC 5390G Advanced Topics in Kinesiology Equivalent UWO KIN 9066 Special Topic Equivalent Waterloo None (note: selected topics are in each sub discipline) Windsor 95-595 Selected Topics Equivalent York KAHS 6220 Readings in Special Topics Equivalent KINE 5046: Independent Research Project in Kinesiology **Brock** Equivalent AHSC 5P60: Directed Study Lakehead none Laurentian PHED 5456: Directed individual Study in Human Kinetics Equivalent Laurier KP604 Directed Studies in Physical Activity and Health I 50% overlap KP 605 Directed Studies in Physical Activity and Health II 50% overlap McMaster Kinesiol 702: Individual Research Study in Selected Topics Equivalent Ottawa APA 5997: Directed Studies in sport, physical activity, and health Equivalent Queen's KHS-898 Individual Project Equivalent **Toronto** EXS 7002H+ Directed Research Project in Exercise Sciences Equivalent UWO Equivalent KIN 9611 Masters Independent Study Waterloo None Windsor None York KAHS 5400/5410 Master's Practica, Part I and Part II Equivalent KINE 5047: Directed Readings in Kinesiology **Brock** AHSC 5P61: Directed Reading Equivalent Lakehead KIN 5070 Directed Studies Equivalent Laurier KP604 Directed Studies in Physical Activity and Health I 50% overlap KP 605 Directed Studies in Physical Activity and Health II 50% overlap

McMaster Kinesiol 713: Directed Reading in Kinesiology Equivalent Ottawa None Queen's KHS-895 Individual Study Toronto EXS 7001H Directed Reading in Exercise Sciences Equivalent UWO KIN 9101/9201 Advanced Topics 50% overlap Waterloo None Windsor 95-510 Special Problems Equivalent KINE 5206: Integrative Seminar in Kinesiology **Brock** AHSC 5P01: Current issues in Applied Health Sciences Research 50% overlap Lakehead None Laurentian PHED 5026 Seminar in Human Kinetics I Equivalent PHED 5027 Seminar in Human Kinetics II Equivalent PHED 5984 Research Seminar I Equivalent PHED 5984 Research Seminar II Equivalent Laurier KP601 Seminar in Physical Activity and Health I 50% overlap KP611 Seminar in Physical Activity and Health II 50% overlap McMaster None (previously listed as Kinesiol 703, but has been removed from degree requirements) Ottawa APA 6923: Seminar Equivalent APA 6924: Seminar Equivalent Queens KAHS 6210 Master's Graduate Seminar Equivalent Toronto SRM 3335H+ Graduate Seminar Master's 50% overlap UWO KIN 9998 M.A. Seminar Equivalent Waterloo KIN 670A to I: Seminar I (split by sub discipline) 50% overlap Windsor None KINE 5453: Research Thesis **Brock** AHSC 5F90: Research and Thesis Equivalent Lakehead KIN 5901 Master's Thesis Equivalent Laurentian PHED 5000 Research Thesis Equivalent Laurier KP699 Master's Thesis Equivalent

None (no associated course code, but it is expected in partial fulfillment of the degree)

McMaster

Ottawa

36

APA6999 master's research and thesis

Equivalent

Queen's

KHS-899 Master's Thesis Research

Equivalent

Toronto

None (no associated course code, but it is expected in partial fulfillment of the degree)

UOIT

HLSC 5096G MHSc Thesis in Health Sciences

Equivalent

UWO

None (no associated course code, but it is expected in partial fulfillment of the degree)

Waterloo

None (no associated course code, but it is expected in partial fulfillment of the degree)

Windsor

95-797 Thesis Equivalent

Senate Report Research Council

The 1st meeting of the **Research Council** for the 2015-16 academic year was held on **Friday**, **October 30**, **2015** at **1:00 p.m.** in **F303**. The following members attended:

Members:

Harley d'Entremont, Chair Logan Hoehn Murat Tuncali Mark Bruner April James Rick Vanderlee

Nancy Black Kristina Karvinen Robin Gendron John Nadeau

Regrets: Carole Richardson

Vacant Position: Graduate Student Representative

Creation of Centre (IWRC)

The Research Council reviewed and approved the creation of the Integrative Watershed Research Centre (IWRC).

Respectfully submitted,

Harley d'Entremont, Ph.D., Chair Research Council

Motion 1: That the report of the Research Council Committee dated October 30,

2015 be received.

Motion 2: That Senate approve the creation of the Integrative Watershed Research

Centre (IWRC), as attached. (Please note that this report was inadvertently left off the December 11, 2015 Senate Agenda).

Integrative Watershed Research Centre (IWRC) Nipissing University

"Thinking with and beyond watersheds" wac.nipissingu.ca (to be changed to iwrc.nipissingu.ca)

Name and Purpose of the Centre

The proposed research centre is the Integrative Watershed Research Centre (IWRC). The centre's purpose is i) to support, promote and lead watershed-related research, ii) to provide unique field and laboratory training opportunities affiliated with Nipissing's MES/MESc graduate program and iii) to develop new opportunities for interdisciplinary and transdisciplinary research addressing environmental problems. It aims to highlight interconnections, partnerships and discourse in watershed research between our regional watersheds and others at regional (e.g. Muskoka River, Lake of the Woods, Petawawa River Basins), national and international scales.

In defining the IWRC, the watershed is used as a boundary object (e.g. Lynch et al. 2008), a concept that unites members across many disciplines and perspectives to focus development of research ideas, collaborations and partnerships. As explained by John Wesley Powell, scientist geographer, a watershed is: "...that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they become part of a community..." (EPA, http://water.epa.gov/type/watersheds/whatis.cfm, accessed 20 Sept 2015). The watershed concept is used not only as a hydrologic unit of interest, but a unit that is also immediately relevant to social, political and ecological processes (Wani and Garg, 2010). The watershed "...is now recognized as one of the premier natural ecosystem units on which to manage resources...' (CO, accessed 11 Aug

2015). The proposed name of the centre identifies its focus on research and development of

Rationale for Establishing the Centre

integration across disciplines as illustrated by its founding membership.

Development of the IWRC and its mandate reflects a core growth of research at Nipissing University and contemporary trends in environmental and interdisciplinary research. For example, in the next hydrologic decade (2013-2022), the international hydrologic community has highlighted the importance of studying impact of human activity on hydrological systems as an important shift in focus from pristine catchments. The field of catchment sciences studies the response of catchment systems under changing conditions such as climate variability or landuse/cover changes integrating headwaters and terrestrial processes with downstream lake processes, social and management processes, including how we value ecosystem services. There are an increasing number of interdisciplinary and transdisciplinary research centres and institutes on which we are modelling Nipissing's IWRC. In several instances, research teams and goals have evolved from regional environmental issues that require a broad range of disciplines, community participation (University, community, government and industry) and support. As with UNBC's Dr. Max Quesnel River Research Centre (QRRC), who's recent research activities have included response to the Polly Mines tailings ponds breach in August 2014 (http://www.unbc.ca/quesnel-river-researchcentre, accessed 12Aug15), strength in interdisciplinary research often comes from focus on a common location around which many will bring expertise and collaboration.

The centre's goals and objectives will be broad ranging (see below). For Nipissing researchers, formalizing the IWRC will provide a galvanizing force that will focus and sustain research activities in watershed-related research and environmental issues, including in our own regional watershed, the Sturgeon River-Lake Nipissing-French River (SNF) basin. Research projects listed below show an organically developed focus on the SNF basin, lending an important initial strength to the formation of the IWRC, as common study sites and joint supervision of research have been recognized as high ranking approaches in fostering interdisciplinary and transdisciplinary collaborations (Carr et al., 2015). The centre will support leveraging of existing funding and bring added attention to collaborative research activities, new academic programs (e.g. MES/MESc graduate program) and courses, and individual faculty research programs.

IWRC Inception and Development

Over the last 5 years, a core group of researchers at, and affiliated with Nipissing University have developed a track record of collaborative research, external grant funding, peer reviewed publications, and quality HQP training. Inception of the IWRC began with the establishing of a Canada Research Chair in Watershed Analysis and Modeling (Dept. of Geography). The CRC in Watershed Analysis and Modeling was created to increase Nipissing University's research capacity in strategic areas of Natural Science and the Environment, and "Near North" and Regional Studies. In creating this chair, Nipissing University recognized the critical importance of hydrological systems that lie at the interface of human activities and our ecological systems (Montanari et al. 2013). Water provision and the quality of this water is a well-recognized ecosystem service on which we all depend. Since 2010, with the arrival of April James as CRC, an informal version of IWRC was formed (see website: wac.nipissingu.ca) around which new research initiatives, partnerships and funding has developed (see Figure 1). We have now brought together scholars from different disciplines and areas of specialization including hydrology, water policy, limnology, biogeochemistry, climate, computer science, anthropology, environmental history and sociology.

The Nipissing Bays Project (https://wac.nipissingu.ca/the-bays-project/) is perhaps the most multifaceted, collaborative and interdisciplinary example of new research initiatives generated by IWRC and represents a foundational project for its immediate and long-term future. Co-led by

D. Walters, A. James and K. Chutko (Dept. of Geography), the project is generating high frequency monitoring of weather and water conditions in Lake Nipissing, addressing new userinspired/applied research of immediate regional concerns over the occurrence of harmful algae blooms in our waterways. Preliminary monitoring of Callander Bay in 2012 and 2013 was supported by individual researcher grants (A. James, D. Walters) with field support from a suite of collaborators (adjunct faculty at the Ministry of Environment and Climate Change's Dorset Environmental Science Centre-MOECC-DESC as well as our regional MOECC office, the Ministry of Natural Resources and Forestry - MNRF North Bay office, and the North Bay- Mattawa Conservation Authority – NBMCA). These preliminary efforts created an opportunity in the winter of 2014 to apply for and win additional external grant funding from the MOECC, used to purchase high frequency monitoring equipment that has substantially upgraded research capabilities. The project is now at the stage of generating scientific presentations at national and international meetings and MESc student projects (see Appendix A). Recent additions have included new collaboration with M. Wachoviak in the Dept. of Math and Computer Science. With A. James' CRC renewal (2015-20), this project will leverage new CFI and CRC funding. New field equipment will include a 20' boat for dedicated use on Lake Nipissing, supporting both University and collaborators' use (e.g. MOECC). Our research questions will aim to integrate study of the upstream watershed with in-lake processes in an examination of the impact of external and internal nutrient loadings and weather conditions on bay water conditions. Upstream river water quality monitoring has also created new collaborations with IWRC researchers, leveraging

monitoring equipment and data collection capabilities from the NBMCA and our regional Environment Canada office.

Additional SNF Basin projects include a water cycling study (A. James, NSERC funded 2015- 20). This project is generating a stable water isotope dataset that will allow us to quantify relative contributions of snowmelt, rainfall, and groundwater to river flow and how this may vary for subwatersheds flowing into Lake Nipissing. In the Muskoka watershed, another Canadian Shield watershed located several hours south, collaboration with MOECC-DESC adjunct faculty (H.Yao) and staff (C. McConnell) is contributing new stable water isotope data and analyses in the study of the water balance of headwater Canadian Shield lakes. New computer modeling efforts have also focused on revising watershed models to simulate water quality and quantity in at both headwater and larger basin scales.

Overall, since 2010, new IWRC initiatives, have generated ~ \$1.88 million in grant funding, including the recent renewal of the CRC in Watershed Analysis and Modeling (2015-20) (Appendix B). These efforts include study of the Muskoka River and Attawapiskat watersheds, as part of regional (Canada Water Network – Muskoka River watershed Node) and NSERC strategic grant (Canadian Network for Aquatic Ecosystem Services) network projects. D.Walters and A. James have established the annual Lake Nipissing Research Conference (first held on 22- Nov-2013 with over 70+ participants) and preliminary development of the Lake Nipissing State of the Basin Report (NOHFC). IWRC research initiatives have included both informal and formalized partnerships with government (MOECC, MNRF) and First Nation communities (Dokis FN). Active research collaborations include membership in several national regional and national networks (Canada Watershed Network – Muskoka watershed node; Canadian Network for Aquatic Ecosystem Services). In spring 2015, Nipissing U (A. James) signed a formal 5 year partnership with MOECC-DESC in support of the water cycling study described above focused on the SNF and Muskoka Basins.

Although initial collaborations have been strongly focused in the natural sciences, with examples of narrow interdisciplinary work, '...defined as the transgressing of boundaries between disciplines with similar epistemologies...' (Bjurström and Polk, 2011), our membership is quickly evolving to include broad interdisciplinarity in the environment "...defined as the transgressing of boundaries between disciplines with dissimilar epistemologies..." (Bjurström and Polk, 2011). Recently, members of IWRC were awarded a SSHRC IDG to explore the role of water in the history and social life of Dokis First Nation (2015; C. Dokis, B. Kelly, D. Walters; Contested Waters: Exploring the Lived Experience in Water Quality Risks in an Anishinaabe community in Northern Ontario). This research will lead to a better understanding of the subjective and affective consequences of water quality risks, as well as assist Dokis First Nation in land-use planning. With newly awarded CRC funding, Kirsten Greer is also developing her Lake Nipissing History project.

Research Products

Active members' research has been published in top peer reviewed journals (see Appendix A). Publications and other research products have been generated in our respective disciplines but also reflect new collaborations i) with government (e.g. Yao, McConnell, James and Fu, 2012),

ii) with first Nations communities (e.g. Dokis First Nation Source Water Protection Plan, 2012, and the 2015 SSHRC IDG project), ii) with colleagues across disciplines (e.g. Fu, James and Wachowiak, 2012) and iv) include exploration of how to conduct transdisciplinary research (e.g. Steelman et al. 2015).

HOP training

IWRC activities are creating unique training opportunities for highly qualified personnel (HQPs) at undergraduate, graduate, and PDF levels, as well as full time technical research positions

(Appendix C). HQPs currently benefit from key training strategies of hands-on training, links to real world partners, and peer-to-peer connections. HQPs receive hands-on training in research techniques in catchment and isotope hydrology, GIS, water policy, lake sampling and high frequency monitoring, environmental history, anthropology and sociology. Trainees gain experience using a wide range of hydrological instrumentation consistent with environmental industry use (e.g. auto-samplers, dataloggers, pressure transducers, weather stations) and have access to a Picarro liquid water isotope analyzer (with technical support) to generate project datasets. Individual research projects include strong links to real world partners. Current graduate students are co-advised or have active committee members from MOECC and MNRF and are engaged with additional collaborators from the NBMCA and Environment Canada. A peer-to-peer learning environment trains students how to collaborate while pursuing their own research, a skill valuable in both academic and non-academic workplaces. The new MES/MESc program is a critical vehicle for HQP training. In September 2015, Kirsten Greer and April James piloted a new program component, the MES/MESc and History Student Workship, held on the Chief Commanda, building on a previous initiative at Queen's University in 2011, thinking about mobility and place (see website: http://niche-canada.org/?event=translocal- ecologies-workship-compendium/.)

Short-term Goals

The IWRC's short term goals are to:

- I. Support the existing collaborative projects in the SNF Basin (Figure 1) including:
 - i) **Lake Nipissing Bays Project** focused on quantifying external and internal loading of phosphorus on Callander Bay. This project includes active collaboration from the NBMCA, MOECC-DESC and Environment Canada.
- ii) SNF Basin Water Cycling Study focused on use of water isotope tracers to improved understanding of hydrologic processes in the SNF basin. This project includes a 5 year NU-MOECC research partnership supporting parallel work in the Muskoka River Basin.
 - iii) **State of the Basin Report**. Continued development and completion of the first Lake Nipissing State of the Basin report. 2-years of NOHFC funding (Northern Ontario Internship Program) have been received to date.
 - iv) **Contested Waters**. Exploring the Lived Experience of Water Quality Risks in an Anishnaabe Community on Northern Ontario. This project includes active collaboration with Dokis First Nation.
 - v) Lake Nipissing Historical Watershed Project. Exploring history and colonialism in the Lake Nipissing Watershed.
 - II. Support the annual Lake Nipissing Summit, including organization of a 1-day research conference. The purpose of this important community-led event is to "...create awareness and consensus on the need for shared ownership towards the future of Lake Nipissing...". Several of the past summits have been held on campus, with support provided by both the University and IWRC faculty (http://www.lakenipissingsummit.ca/).

III. Development of an Interdisciplinary Environmental Research Field Course, in collaboration with Dr. Kirsten Greer, CRC in Environmental History (Dept. of History and Dept. of Geography) to be affiliated with the MES/MESc program. This course will offer students an intensive, unique field training course that will crosses disciplines of environmental history, hydrology, limnology, water policy, water quality. To support this course, we will be able to draw on training expertise from MOECC-DESC collaborators and IWRC faculty research lab resources.

Long-term Goals

The IWRC's long term goals are to:

- To support, promote and lead watershed-related research. On a regional scale, IWRC aims to advance scientific understanding of the SNF Basin related to contemporary environmental issues.
- To provide unique field and laboratory training opportunities affiliated with Nipissing's MES/MESc graduate program
- To develop disciplinary, interdisciplinary and transdisciplinary interconnections, partnerships and discourse in watershed research between our regional watersheds and others at regional (e.g. Muskoka River, Lake of the Woods, Petawawa River Basins), national and international scales.

Membership (including the name of Director)

- <u>Director</u>: The director will be responsible for general supervision and management of the centre and will report to the Dean of Arts and Science. The director will be an in-scope faculty member appointed for 3-5 years. In consultation with the executive committee, the centre's direction will have the ability to make minor changes to the modus operandi of the centre. The founding director will be Dr. April James. Future directors will be appointed by the centre's executive committee (see below).
- <u>Executive committee:</u> The executive committee will include 3 volunteer faculty or partner members (one of these member should be from outside the University) and one student member representative.
- Membership: The list of founding faculty are active researchers involved in SNF research projects listed above (Figure 1) and/or are pursuing collaborative research or other innovative research initiatives, including grant applications. These include: Dan Walters (Water Policy), Krys Chutko (Climate), Mark Wachowiak (Computer Science), April James (Hydrology), Kirsten Greer (Environmental History), James Murton (Environmental and Agricultural History) Carly Dokis (Anthropology), Ben Kelly (Sociology) and John Kovacs (Remote Sensing). The criteria for membership will be as follows:
- All participating members will be active researchers who are pursuing collaborative
 research in the SNB Basin or region, including grant applications, consistent with the
 purpose of the centre. Members can include research fellows, full-time and part-time
 faculty members.

Members from other Universities or partners (government, community) will be known as
adjunct centre members. Founding adjunct member including Huaxia Yao (Hydrology),
Andrew Paterson (Limnology), Jim Rusak (Catchment sciences, water chemistry), all of
who are adjunct professors at Nipissing from the Dorset Environmental Science Centre
(DESC – MOECC).

- Students will be given status as student members.
- Members will meet once a semester to report on active research projects and any new research initiatives, etc. Meetings will be organized by the Director and the executive committee. On a regular basis, the centre will also update information on projects, publications and activities on its website (wac.nipissingu.ca).

Administrative Structure

The Centre will be self-organized around specific research projects or initiatives (e.g. The Nipissing Bays Project). The centre's website will serve as resource for communicating active and archived research projects, centre membership (including students and student projects), contact points for new partnerships/project development or calls for participation.

Funding

IWRC members will apply for external and internal funding through competitive grants and other opportunities. We request an initial inception funding of 10K to initiate new centre activities and support piloting of new initiatives in integrative watershed research. As an example, we wish to invite a renown artist to participate in the second MES/MESc and History Graduate Student Workship to add fine arts to our collaboration following examples like the North Temperate Lakes Long Term Ecological (LTER) program (see artist in Residence program https://lter.limnology.wisc.edu/ltearts/ar/overview). The pilot version of our Workship, held in September 2015, was initiated to challenging ourselves to think creatively about collaborative research projects involving the physical sciences and humanities, academia and community, and to explore how we "know" Lake Nipissing. It included 42 participants representing students, faculty and community, natural and social sciences and humanities. Funding was provided by A. James and K. Greer CRC programs.

Physical Resources

Centre meetings will typically be held at Nipissing University where web resources will facilitate connection with any adjunct members. As has been done to date, equipment required to support research has been funded by external grants and in-kind partnership contributions. The Centre has substantial resources from laboratories of active faculty - a listing of current physical resources is included in Appendix D.

An IWRC Hydrologic Technician position currently supports two of the IWRC projects (Bays project, Water Cycling Study) listed under IWRC short-term goals and is funded by A. James CRC program. Continued funding for this position will be sought through any internal or external funding opportunities.

Complementarity

IWRC's focus will be strongly complementary to existing research initiatives of CICAS (Nipissing's Centre for Interdisciplinary Collaboration in Arts and Science), the only other centre/institute on file at Nipissing. Research focus on watershed-related research in the SNF Basin is purposefully broad and as such, many aspects of watershed and environmental research are possible to include in IWRC's mandate, dependent on actives members. It is expected that participation will come as a result of communal interests in both environmental and collaborative research in the SNF Basin or other watersheds. IWRC does not preclude other research centres with overlapping interests in the environment from forming.

Duration

The initial duration of the centre will be 5 years, consistent with CRC funding and additional research partnerships. After 5 years, the centre will review its goals and achievements to plan for the future.

Dissemination of Results

Results of IWRC activities will be disseminated through:

- 1. Peer reviewed publications
- 2. Informal reports, presentations
- 3. The annual Lake Nipissing summit research conference.
- 4. The IWRC website: wac.nipissingu.ca
- 5. Any additional project specific activities.

Compliance

The centres' agenda, structure, and funding protocol are in compliance with Nipissing University's Policy on Centres and Institutes as outlined in NU-RES-2011.05.

Glossary of Terms:

CFI – Canada Foundation of Innovation

CNAES - The Canadian Network of Aquatic Ecosystem Services, a NSERC funded strategic network.

CRC – Canada Research Chair Program

CWN – Canada Water Network

DESC – Dorset Environmental Science Centre, a research centre of the Ontario MOECC located outside of Bracebridge, Ontario.

MOECC - Ontario Ministry of Environment and Climate Change

MNRF – Ontario Ministry of Natural Resources and Forestry

NBMCA – North Bay-Mattawa Conservation Authority

NOHFC – Northern Ontario Heritage Fund Corporation

NSERC – Natural Sciences and Engineering Research Council

SSRCH-IDG – Social Sciences and Humanities Research Council

Watershed, catchment, or basin - an area of land where all of the water that is under it or drains off of it goes into the same place as our common study site Boundary object

Interdisciplinary, broad - "...defined as the transgressing of boundaries between disciplines with dissimilar epistemologies..." (Bjurström and Polk, 2011).

Interdisciplinary, narrow - '...defined as the transgressing of boundaries between disciplines with similar epistemologies...' (Bjurström and Polk, 2011).

HQP - Highly qualified personnel

Submitted to Research Council - 23 October 2015

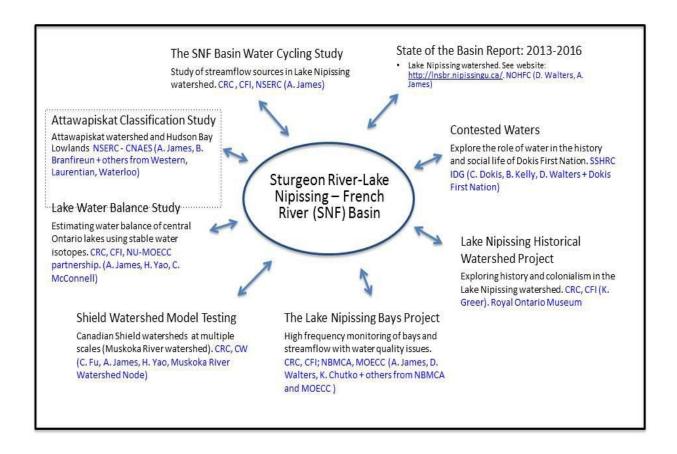


Figure 1. IWRC Research Projects developed since 2010

References

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Conservation Ontario, 2013, Watershed Management, http://www.conservation-ontario.on.ca/what-we-do/what-is-watershed-management, accessed 11 August 2015.

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Lynch AH, L Tryhorn, R. Abramson. 2008. Working at the boundary. Facilitating Interdisciplinarity in Climate Change Adaptation Research. Bull. Am. Meteorol. Soc., 89 (169-179).

Wani SP and KK Garg. 2010. Watershed Management Concept and Principles. Workshop on best-bet option for integrated watershed management, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) Patancheru, Andhra Pradesh, India, , 1-10.

<u>Appendix A.</u> Examples of watershed-related IWRC faculty research products (2010-2015). Bolded names are Nipissing faculty, adjunct faculty or HQPs (PDF, MESc, undergraduate students).

Peer Reviewed Publications (* student or postdoc)

- Yao H., AL James, C McConnell, B Turnbull, T Field, KM Somers. 2015. Relative contributions of stream concentration, stream discharge and shoreline load to base cation trends in Red Chalk and Harp lakes, south-central Ontario, Canada. Hydrological Processes, DOI:10.1002/hyp.10627.
- 2. Steelman, T, Nichols EG, **James AL**, Bradford L, Ebersohn L, Scherman V, Omidire F, Bunn DN, Twine W, McHale, MR. 2015. Practicing the Science of Sustainability: The challenges of transdisciplinarity in a developing world context. Sustainability Science. September 2015.
- 3. *Mountain, N, AL James, K Chutko. 2015. Groundwater and surface water influences on streamflow in a mesoscale Precambrian Shield catchment. Hydrological Processes, 29, 3941-3953.
- 4. *Fu C, **AL James**, H Yao. 2015. Investigations of uncertainty in SWAT hydrologic simulations: a case study of a Canadian Shield catchment. Hydrological Processes, 29 (18), 4000-4017. DOI:10.1002/hyp/10477.
- 5. *Fu C, AL James, H Yao. 2014. SWAT-CS: Revision and testing of SWAT for Canadian Shield catchments. Journal of Hydrology, 511, 719-735.
- 6. Dech JP, *S Mayhew-Hammond, AL James, B Pokharel. 2014. Modeling Canada yew (Taxus Canadensis March.) distribution and abundance in the boreal forest of northeastern Ontario, Canada, Ecological Indicators. 36, 48-58.
- 7. Yao H, C McConnell, AL James, *C Fu. 2012. Comparing and modifying eight empirical

- models of snowmelt using data from Harp Experimental station in Central Ontario. British Journal of Environment & Climate Change, 2(3): 259-277.
- 8. *Fu, C, AL James, M Wachowiak. 2012. Analyzing the combined influence of solar activity and El Nino on streamflow across southern Canada. Water Resources Research 48(5), 1-19.

Conference Presentations (posters, talks...)

- 1. Chutko, KJ, AL James, C McConnell, H Yao. 2015. Comparing catchment mean transit times and landscape characteristics for mesoscale catchments in northeastern Ontario. Session H14D (poster), AGU-GAC-MAC-CGU Joint Assembly. Montreal, QC, 3-7 May.
- 2. Chutko, KJ, D Walters, AL James, M Wachowiak, C McConnell, H Yao, A Paterson, J Rusak. 2015. High frequency monitoring of lake and weather conditions in Lake Nipissing, Ontario: Exploring the 2014 hydrographical dataset. Session H14D (poster), AGU-GAC-MAC-CGU Joint Assembly. Montreal, QC, 3-7 May.
- 3. *McCorkell DR, AL James, KJ Chutko, ML Macrae, S Miller. 2015. Storm-based tracer response of a mesoscale Precambrian Shield catchment with mixed landuse. Session H24F (poster), AGU-GAC-MAC-CGU Joint Assembly. Montreal, QC, 3-7 May.
- 4. **Chutko KJ, A. James, C. McConnell, H. Yao.** 2015. Seasonal trends in stable water isotopes and estimation of mean transit times for mesoscale catchmeths with mixed landuse in northeastern Otnario, Canada. Geophyiscal Research Abstracts. 17, EGU2015-7267-1.
- 5. **Chutko, K, James AL, *B. Rundle.** 2014. Stable Water Isotope (O and H) Evolution of a Boreal Snowpack. 71th Annual Eastern Snow Conference, Jun 3-5. Boon, NC. Session 4.
- 6. *McConnell C, James AL, Yao H, Mitchell CPJ. 2014. The Simplified Isotope Mass Balance Approach for Headwater Lakes in South-Central Ontario. Session H4 (poster), CGU-CSSS Scientific Meeting. Banff, AB 4-7 May.
- 7. **James, AL, Chutko K, Mountain N, *England N, *Rundle B.** 2014. Examining Source Water Dynamics within the Lake Nipissing-French River System Using Stable Water Isotopes (SWI). Session H4 (poster), CGU-CSSS Scientific Meeting. Banff AB 4- 7 May.
- 8. *Fu C., AL James, H. Yao. 2013. Modeling of nitrogen dynamics in a Canadian Shield watershed: testing of SWAT-CS. Abstract 6555, Session 2D05.4, CMOS-CGU-CWRA Joint Scientific Congress, 28 May 2013.
- 9. *Mountain, N, AL James, and K. Chutko. 2013. Source Water Contributions to Streamflow in the Wasi Watershed Using Stable Isotope and Geochemical Tracers. Abstract 6553, Session 2D32.6, CMOS-CGU-CWRA Joint Scientific Congress, 28 May 2013.
- 10. *Fu, C, A.L. James and H. Yao. 2012. SWAT-CS: Revision and testing of SWAT (Soil and Water Assessment Tool) for forested Canadian Shield watersheds. Abstract H21G-1256 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- 11. *Fu, C., A.L.James and M.P. Wachowiak. 2011. Analyzing the influence of solar activity and El Nino on streamflow across southern Canada. Abstract H431-1358 presented at 2011 Fall Meeting, AGU, San Francisco, CA, 5-9 Dec.

None refereed talks, posters, reports, websites content

- 1. *Peart, C. 2015. Total phosphorus analysis on the Veuve River: The impact of agriculture. Unpublished Undergraduate Thesis. Supervisors: **KJ Chutko** and S. Kariuki.
- 2. *England N, AL James, R. Pyrce, K Chutko. 2014. Informing Water Management of the Sturgeon River Watershed In Northeastern Ontario via Historical Hydrometric Data Review and Isotopic Analysis (poster). Muskoka Summit on the Environment: Environment

- -Economy. May 8-9.
- 3. Dokis First Nation Source Water Protection Plan. 27 June 2012. Prepared by **D. Walters, A. James,** M. Malette, 34p.
- 4. Websites: wac.nipissingu.ca

Appendix B. Examples of Funding Generated by IWRC Faculty Research Projects

| Title | Date | Total Value to Nipissing U. | Agency |
|---|---------|-----------------------------|--------------------|
| Contested Waters: Exploring the Lived | 2015- | \$70,000 | SSRHC |
| Experience in Water Quality Risks in an | | | |
| Anishinaabe community in Northern | | | |
| Ontario | | | |
| Stable Water Isotope Study of a | 2015-20 | \$110,000 | NSERC |
| Mesoscale Precambrian Shield Basin for | | | |
| Improved Model Predictions of Water | | | |
| Quantity and Quality | | | |
| The SNF Watershed System: Linking | 2015-20 | 1.16 million | CRC, MRI |
| Lake to Watershed | | (James) | |
| The SNF Watershed System: Linking | 2015 | 150K | CFI |
| Lake to Watershed | | (James, Walters) | |
| Nipissing U. – MOECC | 2015 | 300K | MOECC |
| Partnership | | (James) | |
| Lake Nipissing Bays Project | 2014 | 50K | MOECC |
| | | (James, Walters, Chutko) | |
| State of the Basin Report | 2013/14 | 30K (Walters) | NOHFC |
| | 2014/15 | 30K (Walters) | |
| Canadian Network for Aquatic Ecosystem | 2012-16 | 20K | NSERC |
| Services: Catchment classification in the | | (Branfireun, James) | |
| Attawapiskat watershed and Hudson Bay | | | |
| Lowlands | | | |
| Managing cumulative effects in the | 2012-15 | 40 K | Canadian Watershed |
| Muskoka River Watershed: Monitoring, | | (Yao, James) | Network – Muskoka |
| research and predictive modeling: | | | Watershed Node |
| Catchment Model Testing in Shield | | | |
| watersheds | | | |
| Enhancing the capacity to protect | 2011-12 | 50K | Health Canada |
| drinking water in Dokis First Nation | | (Walters, James) | |

Appendix C. Examples of IWRC Affiliated HQP training at Nipissing University.

A. PDF Research, Graduate and Undergraduate Theses/MRPs

| Advisee – Graduate/PDF | Degree/status | Dates | Advisors (co) |
|------------------------|---------------------------|---------|-------------------|
| B. Oster | Undergrad | 2015- | Chutko |
| C. Peart | Undergrad | 2014-15 | Chutko, Kariuki |
| B. Rundle | MESc | 2014- | James, Branfireun |
| M. Prescott | MESc | 2014- | Walters |
| C. McConnell | MESc – flextime | 2012- | James, Yao |
| N. England | MESc – flextime | 2012- | James |
| M. Rahman | PDF | 2013-14 | James, Yao |
| J. Lavigne | MESc – flextime/mat leave | 2012- | Walters, James |
| N. Mountain | MESc | 2011-14 | James |
| C. Fu | PDF | 2011-13 | James, Yao |

| M. Galoni | Undergrad | 2010-11 | Walters, James |
|-------------|-----------|---------|----------------|
| M. Lachance | Undergrad | 2010-11 | Walters, James |

B. Technical Staff

| Staff Member | Position | Dates | Advisors (co) | |
|--------------|--------------------------------|---------|----------------|---|
| T. Field | DESC Partner Technician | 2015- | Yao | - |
| D. McCorkell | Hydrological Technician | 2014-15 | James | |
| M. Tessier | State of the Basin Coordinator | 2015-16 | Walters | |
| K. Chutko | Hydrological Technician | 2012-14 | James | |
| K. Turner | State of the Basin Coordinator | 2014-15 | Walters, James | |
| B. Rundle | Isotope Lab Research Assoc. | 2013-14 | James | |
| N. Mountain | Isotope Lab Research Assoc. | 2011-13 | James | |
| J. Wright | Hydrological Technician | 2011-12 | James | |
| K. Shea | Isotope Lab Research Assoc. | 2011 | James | |

Appendix D. Physical Resources

Physical resources available to the Watershed Analysis Centre are available through individual faculty research programs and affiliated collaborators. On campus facilities include field, laboratory and computing infrastructure supporting catchment and lake monitoring, laboratory and computational analysis and modeling (see listing below). More information can also be found on the <u>Watershed Analysis Centre (WAC)</u> website. Additional resources have been made available through active collaborations (e.g. water chemistry analysis).

Field Monitoring Equipment

Field equipment supports the study of hydrologic processes (e.g. streamflow generation) under varying environmental conditions and includes meteorological stations, streamflow monitoring station packages (Isco auto-sampler, raingage, pressure transducer, YSI EC/Temperature probes), groundwater recording (water level meters, capacitance rods) and sampling instrumentation (peristaltic pump, drive-point piezometers), soil moisture monitoring probes and lysimeters, basic hydrometric equipment (pygmy meter outfit with Aquacalc 5000, constant head permeameter, soil auger kit) and a field truck. Field and lab equipment supports use of a range of environmental tracers of water movement and sources within the landscape (temperature, EC, stable isotopes of 18O/16O, and D/H).

Lake profile monitoring equipment includes two Fondriest CB-405S Data Buoys equipped with thermistor chains, EXO2 Sonde and sensors (EC, T, pH, total algae, turbidity), data loggers, and weather instrumentation (wind speed/direction, RH, rain).

Water Isotope Laboratory

This laboratory analyses water samples (liquid and vapor) for stable isotope ratios of 18O/16O, and D/H using a L2120-i Picarro isotope liquid water analyser. Equipped with a Millipore DI water purification system and cold storage (fridge, freezer), the lab also supports preparation and storage of water samples for additional off-site analyses (e.g. cation, anion, trace element, TOC).

Computer stations (five) support data analysis, catchment modeling and spatial analysis (i.e. GIS). A rugged field notebook supports field-based downloading and programming capabilities. Computing stations are outfitted with floating software licenses include MATLAB and ArcGIS and a range of freeware supporting catchment modeling.

These facilities are supported by CRC, CFI and NSERC funding awarded to Dr. April James and Ontario Ministry of Environment and Climate Change funding awarded to Drs. April James, Dan Walters and Krys Chutko. For further information contact Dr. April James at 705-474-3450 (X4062) or aprilj@nipissingu.ca.



Report of the PLANNING AND PRIORITIES COMMITTEE Friday, October 16, 2015

As we did not have quorum for the October 16, 2015 Planning and Priorities Committee meeting, an electronic vote was held. The following members participated:

| Harley d'Entremont (Chair) | Chris Hachkowski | Kerri Sawyer |
|----------------------------|-------------------|------------------|
| Glenn Brophey | Blaine Hatt | Murat Tuncali |
| Greg Brown | Laurie Kruk | Rick Vanderlee |
| Christine Cho | Carole Richardson | Janet Zimbalatti |
| | | |

Regrets: Jamie Graham, Alex Karassev, Matti Saari, Trevor Smith

Recording Secretary: S. Landriault

The purpose of the electronic vote was to obtain approval for the Stage 1: Major Program Modification of the Bachelor of Arts, Child and Family Studies program proposal.

After reviewing the revised proposal, 12 of the 17 PPC members approved recommending to Senate, the Stage 1: Major Program Modification of the Bachelor of Arts, Child and Family Studies program proposal.

Respectfully submitted,

Harley d'Entremont, PhD Chair, Planning and Priorities Committee

<u>Motion 1</u>: That the Report of the Planning and Priorities Committee dated October 16, 2015, be received.

<u>Motion 2</u>: That Senate grant approval of the Stage 1: Program Proposal for a Bachelor of Arts, Child and Family Studies program proposal, as attached.

Letter of Intent Stage 1: Major Program Modification Bachelor of Arts, Child and Family Studies Program

Since its inception, the Bachelor of Arts in Child and Family Studies (CHFS) program has been offered exclusively at the Muskoka Campus. However, the forthcoming closure of Nipissing University's Muskoka campus has sparked a need to relocate the program to the University's main campus in North Bay. According to the NU-IQAP policies and procedures, the establishment of a degree program at another location is considered a major modification. Consequently, this Letter of Intent is intended to satisfy Stage 1 of the NU-IQAP approval process.

Although the closure of the Muskoka campus necessitates the move of the CHFS program for obvious reasons, there are a number of other factors that bolster the argument for relocation.

The CHFS program is built on an interdisciplinary framework that draws on subject areas such as psychology, social welfare, political science and social work. Each of these disciplines already has an established presence on the North Bay campus which can only serve to strengthen and enhance the CHFS program in the form of greater breadth of course offerings for students and additional faculty support.

One of the founding objectives of the program is to provide students with a solid educational basis upon which to pursue their future goals, whether it means further education or career focused aspirations. Moving the program to North Bay will allow CHFS students more direct access to student support services to help them achieve their goals as well as the opportunity to seamlessly transition into the new Bachelor of Social Work program.

With respect to academic oversight, the program is presently housed under the School of Human and Social Development within the Faculty of Applied and Professional Studies. The program would remain under this umbrella in its new location, allowing for continuity in operations and administration. In addition, the move will facilitate collaboration among faculty members from all disciplines with respect to teaching and research by eliminating geographical barriers.

The CHFS program has typically been a destination program for students, attracting a high number of college graduates looking to obtain a degree related to their field of study. Therefore, it is not anticipated that moving the program to North Bay would negatively impact enrollment; in fact, the greater number of amenities available on the North Bay campus to entice students may result in increased enrollment. It will also provide students with a 'fuller' or richer University experience.

The Child and Family Studies program has proven to be an asset to the University and has the potential to grow even stronger on the North Bay campus where there is increased support for students and faculty alike. This Letter of Intent demonstrates our commitment to seeing CHFS continue to thrive, grow and evolve in a new locale.

- 3. READING and DISPOSING of COMMUNICATIONS
- 4. QUESTION PERIOD
- 5. REPORTS of STANDING COMMITTEES and FACULTY or UNIVERSITY COUNCILS

SENATE EXECUTIVE COMMITTEE (page 57)

MOTION 1: That the Report of the Senate Executive Committee dated January 7, 2016 be received.

UNDERGRADUATE STUDIES COMMITTEE

- October 21, 2015 Report (page 58)
- MOTION 2: That the report of the Undergraduate Studies Committee dated October 21, 2015 be received.

SCHULICH SCHOOL OF EDUCATION

- MOTION 3: That Senate approve the deletion of the PHED 2306 Research Methods and Statistics course and its resultant removal from the Bachelor of Physical and Health Education program requirements.
- MOTION 4: That Senate approve the addition of PHED 2406 Research Methods in Physical Activity.
- MOTION 5: That Senate approve the addition of PHED 2406 Research Methods in Physical Activity as a program requirement.
- MOTION 6: That Senate approve the addition of PHED 3306 Statistics in Physical Activity.
- MOTION 7: That Senate approve the addition of PHED 3306 Statistics in Physical Activity as a program requirement.

POLICIES & GUIDELINES

Non-Substantive Changes:

That the language in the Exam Policy sections concerning General Principles and Scheduling of Final Examinations be modified to provide clarity, as indicated in the supporting documentation.

- MOTION 8: That Senate approve the modification of the Aboriginal Advantage Program admission requirements policy.
- MOTION 9: That Senate adopt:
 - Ancillary Fees: Guidelines pertaining to learning resources and fieldtrips
 - Guidelines for Instructors on textbooks, clickers, field trips and the use of online resources

• **December 3, 2015 Report** (page 70)

MOTION 10: That Senate receive the Report of the Undergraduate Studies Committee, dated December 3, 2015.

Faculty of Arts and Science

Computer Science and Mathematics

Non-Substantive:

The course description be changed for PHYS 2007 as follows:

Students study concepts and physical laws in geometric optics, physical optics, and interaction of light with matter, and provides an introduction to topics in modern physics including the theory of special relativity, fundamentals of quantum physics, atomic physics and nuclear physics.

MOTION 11: That Senate change the course number of the course PHYS 4006 Computational Physics back to PHYS 3007.

Schulich School of Education

Physical Education

Non-Substantive:

The course title for PHED 4227 be changed from "Nutrition" to "Nutrition and Physical Activity".

MOTION 12: That Senate approve that PHED 4227 – Nutrition and Physical Activity no longer be cross coded with BIOL 4227 – Nutrition.

Admission Policies

Concurrent Grade 12 Applicants

MOTION 13: That Senate approve the Concurrent Grade 12 admission policy.

Admission to a Degree Program from the Aboriginal Advantage Program

MOTION 14: That Senate approve the Admission to a Degree Program from the Aboriginal Advantage Program admission requirements policy.

Other

MOTION 15: That Senate grant a one-time extension for curriculum submissions for inclusion in the 2016/17 Academic Calendar, due to current circumstances. Submissions must be approved by the February 12th Senate Meeting.

PLANNING AND PRIORITIES COMMITTEE (page 76)

Motion 16: That Senate approve the Report of the Planning and Priorities Committee dated December 11, 2015.

Motion 17: That Senate grant approval of the Stage 1: Joint Degree/Diploma Bachelor of Arts in Social Welfare and Social Development (SWLF) Nipissing University and Canadore College.

9. <u>REPORTS FROM OTHER BODIES</u>

- A. (1) Board of Governors
 - (2) Alumni Advisory Board
 - (3) Council of Ontario Universities (Academic Colleague)
- B. Reports from Senate members participating on other university-related committees

10. <u>NEW BUSINESS</u>

Election of a Deputy Speaker

11. ANNOUNCEMENTS

- (a) President
- (b) Provost and Vice-President Academic and Research
- (c) Dean of Applied and Professional Studies
- (d) Dean of Arts and Science
- (e) Dean of Education
- (f) Student Representative
- (g) Others

12. <u>ADJOURNMENT</u>

NIPISSING UNIVERSITY

REPORT OF THE

SENATE EXECUTIVE COMMITTEE

January 7, 2016

There was a meeting of the Senate Executive Committee on Thursday, January 7, 2016.

Members present: M. DeGagne (Chair), J. Andrews, N. Colborne, C. Richardson, M. Tuncali,

R. Vernescu

Regrets: L. Frost, F. Noël, R. Vanderlee

Recording Secretary: S. Landriault

The purpose of this meeting was to set the agenda for the January 15, 2016 Senate meeting.

There was discussion regarding the placement of question period on the Senate Agenda. In order to ensure that the business of the University is conducted, it was suggested that a set time limit be applied to question period. It was also suggested that substantive questions that have been e-mailed to the Senate Recording Secretary in advance be given precedence. If Senators have unanswered questions remaining these questions could be asked at the end of the meeting. Senators have the right to decline to answer a question until they have had time to research the answer. A concern was raised regarding motions being brought forward in question period. Senator Colborne advised that these items would be added for discussion at the next By-laws and Elections Subcommittee meeting.

Senator Vernesu advised of a discussion that was held at a recent USC meeting regarding consistency of the USC and PPC guidelines. The Provost advised that he has an upcoming meeting with the Chair and the Executive Director of the Ontario Universities Council on Quality Assurance. We are waiting to receive the Audit report. Once the report is received, PPC will revise the IQAP process, and it will then go to Senate.

Respectfully submitted,

Original signed by:

M. DeGagne, Chair Senate Executive Committee

MOTION 1: That the Report of the Senate Executive dated January 7, 2016 be received.

Report of the Undergraduate Studies Committee

October 21, 2015

The meeting of the Undergraduate Studies Committee was held on Wednesday, October 21, 2015, at 10:30 am in F214. The following members attended:

Sharon Rich Pavlina Radia (A&S Dean's Designate) Carole Richardson Rick Vanderlee Jamie Graham Daniel Jarvis

Reehan Mirza Roxana Vernescu (Skype) Anne Wagner (Skype)

Kerri Sawyer

Jane Hughes, Recording Secretary

Absent with Regrets: Murat Tuncali, Tony Parkes, Sydney Lamorea

Guests: Crystal Pigeau, Stephen Tedesco, Margarida Shail, Jim McAuliffe, Rebecca Roome-Rancourt

The Undergraduate Studies Committee received and discussed changes from the Schulich School of Education and Policies and Guidelines. The outcomes of those discussions are reflected in the recommendations to Senate contained in the motions below. Supporting material is attached as indicated in the motions.

Respectfully submitted,

(Original signed by Murat Tuncali for Sharon Rich)

Dr. Sharon Rich

Associate Vice President Academic

MOTION 1: That Senate receive the Report of the Undergraduate Studies Committee, dated October 21, 2015.

1. SCHULICH SCHOOL OF EDUCATION

MOTION 2: That Senate approve the deletion of the PHED 2306 Research Methods and Statistics course and its resultant removal from the Bachelor of Physical and Health Education program requirements.

MOTION 3: That Senate approve the addition of PHED 2406 Research Methods in Physical Activity.

MOTION 4: That Senate approve the addition of PHED 2406 Research Methods in Physical Activity as a program requirement.

MOTION 5: That Senate approve the addition of PHED 3306 Statistics in Physical Activity.

MOTION 6: That Senate approve the addition of PHED 3306 Statistics in Physical Activity as a program requirement.

2. POLICIES & GUIDELINES

Non-Substantive Changes:

That the language in the Exam Policy sections concerning General Principles and Scheduling of Final Examinations be modified to provide clarity, as indicated in the supporting documentation.

MOTION 7: That Senate approve the modification of the Aboriginal Advantage Program admission requirements policy.

MOTION 8: That Senate adopt:

- Ancillary Fees: Guidelines pertaining to learning resources and fieldtrips
- Guidelines for Instructors on textbooks, clickers, field trips and the use of online resources

SUPPORTING DOCUMENTATION

MOTION 3: That Senate approve the addition of PHED 2406 Research Methods in Physical Activity.

A) Descriptive Data:

| Course Code | PHED 2406 |
|--|---|
| Course Title | Research Methods in Physical Activity |
| Course Prerequisite | none |
| Course Corequisite | Click here to enter text |
| Antirequisite | PHED 2306 |
| Total Hours | □36 hours □ 72 hours □ Other |
| Breakdown of Hours | Choose an item from this drop down menu ☐ Other 3 hours of lecture |
| Course Credits | □3 credits □ 6 credits □ Other |
| Course Description (Restricted to 50-75 words, present tense and active voice) | Students are provided with an introduction to quantitative and qualitative methods used in physical activity research. Students gain an understanding of the research process and will be introduced to basic statistical analysis. Ethical issues in research will also be discussed. |
| Course Grouping or Stream | Does this course belong to a Group or Stream? □No □ Yes |
| Program Implications | Does this course have program implications? ☐ No ☐ Yes |
| Cross-Listing or Cross-Coding | □ Cross-Listed - this course may be credited towards no □ Cross-Coded - this course is cross-coded with no |
| Learning Expectations/ Outputs (6-8 points, visible, measurable and in active voice) | Demonstrate an understanding of a wide variety of research methods in human movement, sport, and physical activity Develop a broad knowledge base of data collection methods and investigation techniques Acquire the ability to interpret results from a peer reviewed journal article or research paper Demonstrate a broad knowledge base of ethical issues involved in conducting research with humans Demonstrate an ability to disseminate results, data, and conclusions in an effective manner Acquire the ability to translate research knowledge into a consumable format for end-users in the broader community |

B) Comparative Data (Strongly recommended but not required)

Please list course numbers and titles. Course descriptions are NOT necessary.

| University | Equivalent Course(s) and Titles | Non-Equivalent but 50% or more overlap |
|-----------------|---|---|
| Brock | KINE 2P08 Research Design and Evaluation | Click here to enter text. |
| Carleton | none | none |
| Guelph | none | none |
| Lakehead | KINE 3230 Research Processes | none |
| Laurentian | | PHED 2216EL Research Methods in Human Kinetics |
| McMaster | none | none |
| OCAD | none | none |
| Ottawa | APA 2180 Research Methods in Human Kinetics | none |
| Queen's | HLTH 252 Introduction to Research Methods | none |
| Toronto | none | KPE 290 Research Design and Evaluation KPE 190 Inquiry in Kinesiology and Physical Education |
| Trent | none | none |
| Waterloo | KIN 330 Research Design | none |
| Western | KIN 2032 Research Design in Human Movement Science | none |
| Wilfrid Laurier | KP261 Research Methods I | none |
| Windsor | 95-270 Research Design | none |
| York | HH/KINE 2050 – Analysis of Data in Kinesiology I | none |

C) Statement of Need:

CCUPEKA Accreditation standard 3.0 includes 6 credits in research methods and statistics as required courses.

MOTION 5: That Senate approve the addition of PHED 3306 Statistics in Physical Activity.

A) Descriptive Data:

| Course Code | PHED 3306 |
|--|---|
| Course Title | Statistics in Physical Activity |
| Course Prerequisite | PHED 2406 Research Methods in Physical Activity |
| Course Corequisite | Click here to enter text |
| Antirequisite | PHED 2306 |
| Total Hours | □36 hours □ 72 hours □ Other |
| Breakdown of Hours | Choose an item from this drop down menu ☐ Other 3 hours of lecture |
| Course Credits | □3 credits □ 6 credits □ Other |
| Course Description (Restricted to 50-75 words, present tense and active voice) | Students are provided with an introduction to statistical analyses used in physical activity research. Students will gain an understanding of univariate and multivariate approaches to data analyses and interpretation. |
| Course Grouping or Stream | Does this course belong to a Group or Stream? □No □ Yes □□□□□ |
| Program Implications | Does this course have program implications? □ No □Yes |
| Cross-Listing or Cross-Coding | □ Cross-Listed - this course may be credited towards no □ Cross-Coded - this course is cross-coded with no |
| Learning Expectations/ Outputs (6-8 points, visible, measurable and in active voice) | Describe and demonstrate basic parametric statistical data analyses Describe and demonstrate basic non-parametric statistical data analyses Develop an ability to employ univariate statistics in the appropriate research context in human movement, sport, and physical activity Develop an ability to employ multivariate statistics in the appropriate research context in human movement, sport, and physical activity Acquire an understanding of the application of statistics to different environments (e.g. clinical, classroom, workplace, and sport) Acquire the ability to translate research knowledge into a consumable format for end-users in the broader community |

B) Comparative Data (Strongly recommended but not required) Please list course numbers and titles. Course descriptions are NOT necessary.

| University | Equivalent Course(s) and Titles | Non-Equivalent but 50% or more overlap |
|-----------------|--|--|
| Brock | KINE 3P08 Quantitative Analysis | none |
| Carleton | none | none |
| Guelph | none | none |
| Lakehead | KINE 3030 Introductory Statistics | none |
| Laurentian | none | PHED 2216EL Research Methods in Human Kinetics |
| McMaster | none | none |
| OCAD | none | none |
| Ottawa | none | APA 3381 Measurement and Data |
| | | Analysis in Human Kinetics |
| Queen's | KNPE 251 Introduction to Statistics | none |
| Toronto | none | KPE 290 Research Design and |
| | | Evaluation |
| | | KPE 190 Inquiry in Kinesiology and |
| | | Physical Education |
| Trent | none | none |
| Waterloo | KIN 222 Statistical Techniques | none |
| | Applied to Kinesiology | |
| Western | none | none |
| Wilfrid Laurier | KP 262 Research Methods II | none |
| Windsor | 95-269 Measurement and Evaluation | none |
| York | HH/KINE 2049 Research Methods | none |
| | in Kinesiology | |

C) Statement of Need:

CCUPEKA Accreditation standard 3.0 includes 6 credits in research methods and statistics as required courses.

Exam Policy Revisions

To provide additional clarity around "take home final examinations" and provide a consistent submission deadline for when final grades are due for courses that do not have final examinations.

OLD

I. General Principles

c) No test with a value exceeding 10% of the final grade may be given during the last week of classes in a session. Note: This regulation does not apply to Graduate courses, or to courses offered in condensed formats.

NEW

I. General Principles

c) No test with a value exceeding 10% of the final grade may be given written or due during the last week of classes in a session. Note: This regulation does not apply to Graduate courses, or to courses offered in condensed formats.

OLD

II. Scheduling of Final Examinations

a) The Office of the Registrar schedules all final examinations.

NEW

II. Scheduling of Final Examinations

a) The Office of the Registrar schedules all final examinations. In the case of take home final examinations, course instructors will determine the due date for the take home examination, however the due date must be within the official examination period.

OLD

V. Final Grades

a) Final grades must be submitted into the student information system within seven (7) days of the date a final exam was written for on campus courses, and within fourteen (14) days of the date a final exam was written for alternative delivery courses. For courses where no final exam was scheduled, final grades must be submitted within seven (7) days of the last day of classes in the term.

NEW

V. Final Grades

a) Final grades must be submitted into the student information system within seven (7) days of the date a final exam was written **or due** for on campus courses, and within fourteen (14) days of the date a final exam was written **or due** for alternative delivery courses. For courses where no final exam was scheduled, final grades must be submitted within seven (7) days of the last day of classes in the term. by the last day of the examination period.

Aboriginal Advantage Program Admission Requirements Policy Modification

MOTION 7: That Senate approve the modification of the Aboriginal Advantage Program admission requirements policy.

Current Aboriginal Advantage Program Admission Requirements

Applicants may be considered for admission to the Aboriginal Advantage Program if they:

- Are of Aboriginal ancestry;
- Are admissible as a mature student:
 - o Will be 20 years of age or older by the end of the semester in which they wish to enroll;
 - o Have been away from formal education (secondary school, community college, etc.) for at least the previous two years; and
 - Are a Canadian citizen or permanent resident.
 And
- Are not admissible under any other Nipissing University admission policy.

Applicants will also be required to submit:

- One letter of reference; and
- A two page statement explaining why they wish to attend university and how they plan on being successful in their academic pursuits.

Proposed Change to the Aboriginal Advantage Program Admission Requirements

Applicants may be considered for admission to the Aboriginal Advantage Program if they:

- Are of Aboriginal ancestry;
- Are a Canadian citizen or permanent resident

Applicants will be required to submit:

- Two letters of reference (one personal and one professional);
- An updated resume outlining educational and work experience;
- A two page statement explaining why they wish to attend university and how they plan on being successful in their academic pursuits;
- official secondary school and postsecondary (if applicable) transcripts

Applicants may also be asked to participate in an interview.

Rationale

The program is intended for recent high school graduates, mature students, and college transfer students who would like additional supports and/or whose grades do not reflect their academic potential. The new admission requirements more accurately represent the intention of the program and will allow the Admissions Office and the Office of Aboriginal Initiatives to effectively admit the type of student that the Aboriginal Advantage Program was designed for.

Submitted by: Heather Brown

Date: October 7, 2015

Ancillary Fees: Guidelines Pertaining to Learning Resources and Field Trips

MOTION 8: That Senate adopt:

- Ancillary Fees: Guidelines pertaining to learning resources and fieldtrips

- Guidelines for Instructors on textbooks, clickers, field trips and the use of online resources

resource

→Introduction

The Ministry of Training, Colleges and Universities (MTCU) regulates fees that universities charge to students. Fees charged in addition to tuition are governed through the MTCU ancillary fee protocol.

MTCU's Tuition Fee Framework and Ancillary Fee Guidelines for Publically-Assisted Universities 2013-14 to 2016-17 defines the following types of fees:

- A <u>compulsory ancillary fee</u> is "a fee imposed or administered by a given institution, or one of its constituent parts or its federated or affiliated institutions, in addition to regular tuition fees, which a student is required to pay in order to enroll in, or successfully complete, any credit course."
- A <u>compulsory tuition-related ancillary fee</u> is "a fee which is levied to cover the costs of items that are normally paid for out of operating or capital revenue." The MTCU makes it clear that "institutions are not allowed to charge compulsory tuition-related ancillary fees."
- A <u>compulsory non-tuition-related ancillary fee</u> is "a fee which is levied to cover the costs of items which are not normally paid for out of operating or capital revenue."

The MTCU Guidelines (Section 6.B.3) provide a list of exemptions from the protocol related to non-tuition-related ancillary fees. Below is a subset of this list as they relate to learning resources and field trips.

→ Guidelines Related to Learning Resources

Nipissing University recognizes the benefits that technology-enabled resources can provide to both students and their instructors, through enhanced engagement, greater achievement of learning outcomes and the provision of a broader array of assessment tools. Technology-enabled learning is established across the spectrum of teaching and learning activity at Nipissing University. This includes fully online and blended courses, digital content, online examinations and quizzes, electronic submissions of assignments and reports, discussion groups, and so on. Prior to the most recent guidelines, MTCU effectively prohibited the compulsory purchase by students of digital learning resources and associated assessment tools created by third-party vendors.

The latest MTCU guidelines recognize the "contribution that these resources can make to the quality of teaching and learning, including support for adaptive learning and formative assessment." Importantly, MTCU has delegated the responsibility for developing policies on the use of digital learning resources to universities.

Digital Learning Resources (including online or downloaded resources)

MTCU's ancillary fee guidelines establish clearly that "Fees for digital learning materials that are the property of the student and which can include test/assessment tools" are exempt from the ancillary fee protocol. The guidelines indicate further that "where a course or program relies substantially on assessments that are included with a learning resource, such as online textbook, the Ministry expects universities to have a policy with respect to their students' interests in these situations."

In the spirit of the MTCU guidelines, Nipissing University has determined the following:

- Instructors can require students to purchase access to digital learning resources, including etextbooks for the duration of the course.
- Instructors can require students to purchase physical textbooks that have bundled software or
 online access to additional learning resources, provided that students have the option to
 purchase the bundle components separately.
- Instructors may use third-party vendors of digital learning resources to assess student performance so long as this assessment constitutes 25% or less of the final grade in the course. Any exceptions must be approved by the Dean's Office.
- As with traditional, paper-based learning resources, instructors should endeavor to keep the
 costs of digital learning resources at a level that students can reasonably afford. In situations
 where purchasing or accessing a digital learning resource would cause undue hardship to a
 student, instructors should, where feasible, provide the student with an alternative learning
 resource. Multiple grading schemes can often facilitate these reasonable accommodations.

Nipissing University has determined that the above guidelines strike an appropriate balance between the desire to incorporate technology and the incremental expense to students to access these resources. In their course outlines, instructors should communicate details concerning the use of third party digital resources.

Material Learning Resources (that is, tangible resources that become the property of the student)

Students can be required to purchase or subscribe to:

- textbooks, lab manuals, or course reading packages.
- a hardware-based clicker device, audience response technology or software with similar functionality.
- learning resources such as art supplies, and laboratory equipment (e.g., lab coats, goggles) as long as those resources are retained by the student after completion of the course.

→ Guidelines Related to Field Trips

Fields trips associated with credit-earning courses are also subject to MTCU guidelines. Instructors should be aware of the following:

- Students <u>cannot be charged fees</u> for compulsory field trips <u>outside the province of Ontario</u>¹.
- Students <u>can be charged fees</u> for the reasonable, direct costs of travel and accommodation on <u>compulsory</u> field trips <u>within the province of Ontario</u>. Fees cannot contribute to the salaries and benefits, or travel and accommodation, of instructors or teaching assistants participating in the field trip. Charging students a tuition-related activity fee for compulsory field trips is not permitted.
- Students can be charged for fees for the reasonable, direct costs of travel and accommodation on <u>elective</u>, credit-earning field trips outside the province of Ontario. Fees, however, cannot contribute to the salaries and benefits, or travel and accommodation of instructors or teaching assistants participating in the field trip.

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¹ Exemptions may be granted by the Ministry. To discuss requesting an exemption please contact ????????

Guidelines for Instructors on Textbooks, Clickers, Field Trips and the use of Online Resources

Introduction

The Ministry of Training, Colleges and Universities (MTCU) regulates fees that universities charge to students. Fees charged in addition to tuition are governed through the MTCU ancillary fee protocol. Compulsory ancillary fees are defined as *any fee imposed or administered by an institution in addition to regular tuition fees which a student is required to pay in order to enroll in, or successfully complete, any credit course*. Compulsory ancillary fees for items such as textbooks and clickers are permitted under the protocol, while other fees are specifically prohibited. Details provided below itemize the rules for some of the fees governed by this protocol.

Guidelines

Books, reading packages, clickers, and other learning materials

- Requiring students to purchase or subscribe to compulsory textbooks or course reading packages is permitted.
- Requiring students to purchase clickers for use in class is permitted.
- Charging fees for learning materials, kits and production materials (e.g. arts supplies) which are retained by the student is permitted.

Online resources

- Requiring students to purchase access to online resources in order to complete course assignments, quizzes, exams, etc. which contribute to the students' final grade is not permitted.
- <u>Recommending</u> that students purchase access to online resources is permitted. Allowing students
 the option to complete assignments, quizzes, exams, etc. using these online resources <u>is</u>
 permitted.
- If students are provided with the <u>option of completing assessments using the purchased online resource</u>, or <u>completing comparable alternative assessments</u> that do not require the purchased online resource, then this is not a violation of the ancillary fee protocol.

Field trips

• Charging fees for the reasonable, direct costs of travel and accommodation of students on compulsory field trips within the province of Ontario is permitted. Fees can not include salaries and benefits, or travel and accommodation of instructors participating in the field trip.

• Charging fees for compulsory² field trips outside the province of Ontario is not permitted³.

² A compulsory field trip is required in order for a student to complete their degree. This guideline does not apply to elective field trips.

³ Exemptions may be granted by the Ministry. To discuss requesting an exemption please contact Institutional Analysis & Planning.

Report of the Undergraduate Studies Committee

December 3, 2015

The meeting of the **Undergraduate Studies Committee** was held on Thursday, December 3, 2015, at 2:00 pm in F214. The following members attended:

Murat TuncaliCarole RichardsonRick VanderleeJamie GrahamDaniel JarvisTony Parkes

Reehan Mirza Roxana Vernescu (Skype) Anne Wagner (Skype)

Kerri Sawyer Sydney Lamorea

Jane Hughes, Recording Secretary

Absent with Regrets: Sharon Rich

Guests: Crystal Pigeau, Rebecca Roome-Rancourt

Subcommittee Reports:

The Undergraduate Studies Committee received and discussed changes from the Faculty of Arts & Science, the Schulich School of Education and Admission Policies. The outcomes of those discussions are reflected in the recommendations to Senate contained in the motions below. Supporting material is attached as indicated in the motions.

Respectfully submitted,

(Original signed by Murat Tuncali)

Dr. Murat Tuncali

Dean, Faculty of Arts & Science

MOTION 1: That Senate receive the Report of the Undergraduate Studies Committee, dated

December 3, 2015.

1. Faculty of Arts and Science

Computer Science and Mathematics

Non-Substantive:

The course description be changed for PHYS 2007 as follows:

Students study concepts and physical laws in geometric optics, physical optics, and interaction of light with matter, and provides an introduction to topics in modern physics including the theory of special relativity, fundamentals of quantum physics, atomic physics and nuclear physics.

MOTION 2: That Senate to change the course number of the course PHYS 4006 Computational Physics back to PHYS 3007.

2. Schulich School of Education

Physical Education

Non-Substantive:

The course title for PHED 4227 be changed from "Nutrition" to "Nutrition and Physical Activity".

MOTION 3: That Senate approve that PHED 4227 – Nutrition and Physical Activity no longer be cross coded with BIOL 4227 – Nutrition.

3. Admission Policies

Concurrent Grade 12 Applicants

MOTION 4: That Senate approve the Concurrent Grade 12 admission policy.

Admission to a Degree Program from the Aboriginal Advantage Program

MOTION 5: That Senate approve the Admission to a Degree Program from the Aboriginal Advantage Program admission requirements policy.

4. Other

MOTION 6: That Senate grant a one-time extension for curriculum submissions for inclusion in the 2016/17 Academic Calendar, due to current circumstances. Submissions must be approved by the February 12th Senate Meeting.

SUPPORTING DOCUMENTATION

FACULTY OF ARTS & SCIENCE

Computer Science and Mathematics

Non-Substantive:

That the Undergraduate Studies Committee recommend to Senate to change the course description for PHYS 2007 as follows:

Students study concepts and physical laws in geometric optics, physical optics, and interaction of light with matter, and provides an introduction to topics in modern physics including the theory of special relativity, fundamentals of quantum physics, atomic physics and nuclear physics.

Rationale: It was noticed that in different versions of the Academic Calendar on the web-site, different descriptions (or no description whatsoever) appear. Some of these contain references to MATH 2037, which is not a required course, and thus may be misleading to some students who want to take this course. To rectify this situation, we propose the change in course description as per above.

MOTION 2: That Senate to change the course number of the course PHYS 4006 Computational Physics back to PHYS 3007.

Rationale: The course was originally proposed under the name Computational Physics at 3000 level. At the meeting of ARCC on April 30, 2015 (and subsequently at the Arts & Science Executive meeting on August 27) the course was approved, but the number was changed to PHYS 4006. We feel that the appropriate designation of this course would be the original one as the course is designed and is to be offered as a part of Minor in Physics.

SCHULICH SCHOOL OF EDUCATION

Physical Education

MOTION 3: That Senate approve that PHED 4227 – Nutrition and Physical Activity no longer be cross coded with BIOL 4227 – Nutrition.

Hi Murat and Pavlina,

The motion below will be coming forward to the SSoE ARCC committee and and I am sending to to you so that you can also put it through your ARCC. That way, when we go to USC, both faculties will have approved it and there shouldn't be any delay.

Motion:

That PHED 4227 no longer be cross coded with BIOL 4227 (Nutrition)

Moved: Tina Karvinen, Steven Hansen

Non substantive change required: PHED 4227 be titled Nutrition and Physical Activity.

Moved: Steven Hansen, Barbi Law

Many thanks.

Cheers,

Carole

ADMISSION POLICIES

Concurrent Grade 12 Applicants Admission Policy

MOTION 4: That Senate approve the Concurrent Grade 12 admission policy.

Proposed Concurrent Grade 12 Admission Policy

Subject to certain conditions, a Grade 12 student may take a Nipissing course concurrent with a secondary school program, but credit will not be granted for a passed course until the admission requirements of the University are met.

Such a student must have obtained at least a "B" standing in their studies to date and have a positive recommendation from a guidance counsellor and/or school principal. Grade 12 students may take up to six credits concurrently per term. Their academic records will be reviewed at the end of each session.

Previous Admissions Policy Similar to Proposed Policy

Concurrent Ontario Academic Credit (OAC) Applicants

Subject to certain conditions, an OAC student may take a Nipissing course concurrent with a secondary school program, but credit will not be granted for a passed course until the admission requirements of the University are met.

Such a student must have obtained at least a "B" standing in their studies to date and have a positive recommendation from a guidance counsellor and/or school principal. All applications for admission are subject to the approval of the Senate Committee on Admissions, Promotions and Petitions. OAC students may take only one six-credit course concurrently per session. Their academic records will be reviewed at the end of each session.

Rationale

The previous policy existed when Ontario high school applicants graduated after five years having completed Ontario Academic Credits (OAC) for admission consideration. When OACs were phased out creating a four year high school curriculum this policy was not rewritten to reflect the changes. Over the past few years we have had students request this opportunity. With no formal policy we have brought these requests to Standing and Petitions to approve.

Submitted by: Heather Brown

Date: October 7, 2015

Admission to a Degree Program from the Aboriginal Advantage Program Admission Requirements Policy Proposal

MOTION 5: That Senate approve the Admission to a Degree Program from the Aboriginal Advantage Program admission requirements policy.

Current Policy

There is no current policy.

Proposed Change to the Aboriginal Advantage Program Admission Requirements

Students who have successfully completed the Aboriginal Advantage Program are eligible to apply for admission consideration for degree programs at Nipissing University if they:

- Have a minimum overall average of 60% on the best 18 credits attempted;
- Have a minimum overall average of 60% on six of the following nine credits from the following courses: ACAD-1501, UNIV-1011 and/or LEAD-1006

Students who have successfully completed the Aboriginal Advantage Program are eligible to apply for admission consideration on probation for degree programs at Nipissing University if they:

- Have a minimum overall average of 55-59% on the best 18 credits attempted;
- Have a minimum overall average of 55-59% on six of the following nine credits from the following courses: ACAD-1501, UNIV-1011 and/or LEAD-1006

Students interested in admission consideration to Bachelor of Science degrees or Bachelor of Arts degrees in Computer Science, Economics or Mathematics, must present 4U or equivalent program prerequisites as listed in the Admission Chart in the Academic Calendar.

Students interested in admission consideration to limited enrolment programs (Nursing and Physical and Health Education) may be required to have higher averages than those listed above in addition to presenting 4U or equivalent program prerequisites as listed in the Admission Chart in the Academic Calendar.

Students interested in admission consideration to Concurrent Education will be required to meet the admission requirements for Upper Year Admission to Concurrent Education as outlined in the Academic Calendar.

Rationale

Aboriginal Advantage Program students are evaluated to the same standards as degree seeking students and earn the same university credits. Successful completion of the program includes attendance and participation in tutorials and workshops. By registering in the Aboriginal Advantage Program, students are agreeing to participate in those additional components.

The Aboriginal Advantage Program has gone under a complete review over the past year. The outcomes of this review have allowed us to move forward to officially establish admission criteria for students completing the program who wish to continue their studies at Nipissing.

Submitted by: Heather Brown Date: October 22, 2015



Report of the PLANNING AND PRIORITIES COMMITTEE Friday, December 11, 2015

COMMITTEE MEMBERS:

| Harley d'Entremont (Chair) | Jamie Graham | Kerri Sawyer |
|----------------------------|-------------------|------------------|
| Nancy Black | Blaine Hatt | Murat Tuncali |
| Greg Brown | Sydney Lamorea | Rick Vanderlee |
| Christine Cho | Carole Richardson | Janet Zimbalatti |

Regrets: G. Brophey, C. Hachkowski, A. Karassev, L. Kruk, M. Saari, T. Smith

Recording Secretary: S. Landriault

The Provost advised that Laurentian University is no longer a part of the proposal for the Master of Arts in Sociology. We are attempting to continue on our own and will adjust accordingly. We will suggest to the Council on Quality Assurance that they pick one external reviewer to do a desk audit and review CV's. The program has received Senate approval. The Ministry erroneously communicated funding approval, but to date Quality Council has not approved the Master of Arts in Sociology program at Nipissing University.

The Provost reported that Stage 2 of the BA in Adult Education has been approved by Senate.

The Prioritization Committee report will be brought back for discussion at a future PPC meeting.

The revised self-study template for the IQAP Cyclical Program Review will be available at the next meeting.

A request was made to pass a conditional motion for approval of a degree-diploma collaborative program between Nipissing's Social Welfare programs and Canadore's Social Service program. A proposal went to USC and was approved at the May 15, 2015 Senate meeting. Documentation will be sent to the committee members.

Respectfully submitted,

Harley d'Entremont, PhD

Chair, Planning and Priorities Committee

<u>Motion 1</u>: That the Report of the Planning and Priorities Committee dated December 11, 2015, be received.

<u>Motion 2</u>: That Senate grant approval of the Stage 1: Joint Degree/Diploma Bachelor of Arts in Social Welfare and Social Development (SWLF) Nipissing University and Canadore College, as attached.

Letter of Intent Stage 1: Major Program Modification Bachelor of Arts in Social Welfare and Social Development

This letter outlines our proposal to establish a collaborative program between Nipissing University and Canadore College that would enable students to obtain a 4-year Bachelor of Arts in Social Welfare and Social Development from the university and a 2-year Social Service Worker diploma from the college. In keeping with NU's IQAP policies and procedures, this letter is intended to satisfy the requirements for Stage 1 approval of a major modification to an existing program.

The interdisciplinary Social Welfare and Social Development (SWLF) program at Nipissing University is unique in Canada in both name and content. It focuses on equality and the groups that have been underrepresented in the distribution of resources, opportunities and power. Canadore College's Social Service Worker (SSW) program is complementary in that students learn the skills and methods that qualify them to work in the social service field in a variety of settings. The two programs not only have a close affinity in terms of their subject matter, but share a similar commitment to social and economic justice.

A collaborative SWLF-SSW program would be attractive to prospective students because they would be able to earn both a degree and a diploma in four years instead of the usual six years. Moreover, these students would receive a first rate education that would not only cover the major intellectual debates and theoretical perspectives of the discipline, but would also include a 400-hour practicum experience normally unavailable at the university.

It is anticipated that in September 2016 Nipissing would welcome the first group of students who would have been aware of this collaborative program at the time of their initial application to the university. This cohort of students would begin their third year of studies at Canadore College where they would study for 10 months before returning to Nipissing to finish out their degree.

In addition to ensuring graduates are work ready, the collaborative program would provide a seamless transition for students to pursue further studies such as an MA or Master of Social Work. Additionally, graduates would be able to register as social service workers with the Ontario College of Social Workers and Social Service Workers.

Discussions with Canadore College are already underway and both sides are keen to launch this unique collaboration that would offer students the best of both university and college education.

Once approvals from the university and college are obtained, a memorandum of understanding would be signed to outline the administrative details of the collaboration including admission requirements, registration processes and the provision of student services. A program steering committee would also be formed to monitor the implementation of the collaborative program.

Chancellor's Award for Excellence in Research

PURPOSE

To recognize and celebrate the value of research conducted by Nipissing University full-time faculty and those faculty members who 50 se research makes a significant impact on the discipline or field of research. All full-time faculty members are eligible. The award cannot be received more than once in a five-year period.

RECIPIENT

The recipient shall:

- Be a member of the Nipissing University Faculty Association (NUFA) (full-time bargaining unit);
- Have an outstanding research performance (It could be a significant one-time discovery/contribution or a sustained record of excellent activity and productivity.).

NOMINATIONS

Nominations shall be accepted only from professional peers. The nomination letters shall be treated as being confidential in nature and will not be made available to the nominee. Should a Research Council Member be nominated, a conflict of interest will be declared and he/she will not be on the Selection Committee, the position will be filled with another member of the Council, from the same Faculty. Nominations should be made by **February 15**. Please deliver your nomination package and the support letters to the Office of the Provost and Vice-President, Academic and Research, Chair of the University Research Council, Nipissing University, in Room F309 as well as provide an electronic version of the complete package to vpr@nipissingu.ca.

A complete nomination shall include:

- A concise summary (not to exceed 500 words) outlining the major impacts of the nominee's research accomplishments.
- Supporting letters from **no less than** three peers. One letter should come from an **external peer**. The letters should be substantive and speak to the nominee's research program, its contribution to the field of research and its value to the University and students.
- A letter from the Dean, that speaks of the nominee's contributions to research.

The Provost and Office of Vice-President, Academic and Research will ask the nominated candidate to provide the following:

- A written acceptance of the nomination,
- A current curriculum vitae, outlining research activity and publications within the past five (5) years, and
- The Senate and Faculty committees upon which the nominee has sat.

COMMITTEE

The Nipissing University Chancellor's Research Award Selection Committee shall be a committee of the Research Council and shall recommend the award recipient to the Provost and Vice-President, Academic and Research.

The Selection Committee shall consist of

- One representative from each of the Faculties, as selected by the Research Council,
- One member at large, from the Council,
- The Chair of the Council.
- One (1) previous recipient (within the last 5 years) selected by the Council.

The Chancellor's Research Award Selection Committee may select a recipient from among the nominations, received on or prior to the **March 31**.

If the Selection Committee deems no nomination to be meeting the criterion of excellence, the Committee reserves the right to re-consider nominations from the previous year, when there was more than one excellent nomination at that time. In such a case, the Chair of the Selection Committee shall ask the nominee to provide an updated curriculum vitae.

PRESENTATION

The recipient's name shall be engraved on a plaque displayed at the University entitled "Chancellor's Award for Excellence in Research".

- A certificate shall be presented to the recipient at the next Faculty Convocation for the appropriate Faculty and Program.
- The \$1,500* Award will be accessible to the recipient as a one-time payment through payroll, subsequent to the presentation at Convocation.

^{*}Pursuant to the rules and regulations of the Canadian Revenue Agency