



Project 2018-11  
Northern Ontario College  
Transfer Pathways for  
Health, Fitness, and  
Well-being Students

# oncat caton

March, 2019

## Acknowledgements

We would like to document and acknowledge all those who played a key role in producing the pathways and/or envisioning future pathways that are outlined in this Final Report and look forward to continued communication and educational alignment with the partners.

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## Executive Summary

Previous ONCAT Project 2017-24 developed pathways between the Honours Bachelor of Kinesiology (HBK) degree program at Lakehead University and health, wellness, and physical fitness-related college diploma programs at Georgian and Canadore Colleges; those pathways are currently moving through the Lakehead institutional Senate approval process. The objective of the current project was to expand upon the foundation established in Project 2017-24 by incorporating a pan-northern, bi-directional approach encompassing four additional colleges (Cambrian, Boréal, Northern, and Sault) serving the educational needs of students in Northern Ontario.

Preliminary communication was with college administrators representing academic units encompassing health, wellness, and physical fitness-related programs (e.g., Health Sciences). The project team at Lakehead University initially identified a list of potential diploma programs from these academic units at each college that might be included for transfer pathway development. In some cases, personnel from each college indicated additional programs to be included, and/or programs to be excluded for various reasons.

Course outlines from partner colleges were obtained either via college websites or by email from college personnel. An initial review, completed by the Lakehead project team, identified courses with content that was potentially similar to content in the HBK curriculum. This information was used to first create spreadsheets, and then surveys, aligning similar courses. The surveys provided a means of collaboratively comparing courses based on descriptions, learner outcomes, and other content in a clear, simple, and accessible way.

In the previous Project 2017-24, a thorough review of all HBK course outlines was completed. This review included verifying and revising course outline content, as required, to include accurate, up-to-date course descriptions; clear, specific, and measurable learner outcomes; and consistent, standardized formatting. The current project (2018-11), therefore, did not require HBK course outlines to be inspected and/or revised in as much depth; however, outlines were still reviewed to ensure that they included all of the information that would be required for course comparison between institutions.

Surveys and supporting materials were distributed to contacts at Cambrian College, Collège Boréal, Northern College, and Sault College, as well as to HBK faculty. Results received from Cambrian, Boréal, Sault, and HBK representatives were then analyzed, summarized, and discussed at face-to-face meetings with parties from each institution. An initial exploratory meeting was conducted with representatives from Northern College; however, no comparative survey information was received. Following a discussion with the Dean of Health Sciences and Emergency Services at Northern College, it was mutually decided that they would subsequently withdraw from further analysis at this time.

Information gleaned from the surveys and subsequent meetings was then used to create transfer pathways from six (6) of the college diploma programs to the HBK. Potential transfer credits from the HBK to five (5) of the college diploma programs were also identified and shared with college partners for their use in developing potential degree-to-diploma pathways. The direction of each

pathway reflects not only program content similarities, but also a recognition of degree/diploma combinations that would be most appealing and beneficial for future students.

The diploma-to-degree pathways developed are:

- Cambrian College Physical Fitness Management to HBK
- Collège Boréal Fitness & Health Promotion to HBK
- Collège Boréal Occupational Therapy Assistant & Physiotherapy Assistant to HBK
- Collège Boréal Massage Therapy to HBK
- Sault College Fitness & Health Promotion to HBK
- Sault College Occupational Therapist Assistant & Physiotherapist Assistant to HBK

The suggested potential degree-to-diploma pathways identified are:

- HBK to Cambrian College Physical Fitness Management
- HBK to Cambrian College Medical Radiation Technology
- HBK to Collège Boréal Medical Radiation Technology
- HBK to Collège Boréal Massage Therapy
- HBK to Collège Boréal Paramedic

As determined by the previous Project 2017-24, and reinforced by the current Project 2018-11, students transferring from college programs to the HBK would benefit from unique, targeted programming aimed specifically at enhancing the student transfer process; this programming includes a bridging module and a transfer course. While it is beyond the scope of these projects to develop the actual content for this programming, the inspiration for and development of the concept has been a direct outcome of the project process. This programming is currently being explored within the School of Kinesiology at Lakehead University, and is discussed briefly below.

The topics of anatomy and human physiology have consistently been identified as subject areas requiring further academic attention within the transition from college to university. Whereas health and fitness-related college programs usually require some anatomy and/or physiology courses, the depth and breadth of material is typically not equal to university courses on the same topics, leaving gaps in content that would potentially put the transfer student at a disadvantage. To address this, the School of Kinesiology is currently developing an online bridging module that will ensure that transfer students are provided with the academic content required to successfully continue in the HBK program. Incoming college transfer students whose programs have been identified as requiring advanced study of anatomy and human physiology will be required to complete this bridging module prior to commencement of the HBK program.

Additionally, development of a transfer course to cover other content identified through the detailed course comparison process, as well as material developed to enhance the transfer process, has been suggested. All transfer students would be required to take this course in first year with the intent being that it would assist in the creation of a cohort of transfer students, and provide the opportunity to address any concerns regarding social support, peer mentorship, university resources, and the overall transfer experience. Course content would be aimed at supplying

additional tools and support necessary to enhance transfer student success at the university.

The identification and development of credit transfer pathways was the main focus of the previous Project 2017-24; however, one of the recommendations arising from that project was that future pathway development should additionally focus on the student experience, so as to not only create pathways, but also provide support for their future viability, maintenance, and success. As indicated by Project 2017-24 and existing literature on the topic, student transfer encompasses not only an academic domain, but psychosocial considerations as well. This recommendation was incorporated into the current Project 2018-11, with the overall student experience - rather than the academic component alone - being a guiding factor in the creation of the proposed pathways.



## **Project Purpose and Goals**

The purpose of this project was to expand upon the transfer pathway foundation established in Project 2017-24 to incorporate a pan-northern, bi-directional approach encompassing four additional colleges serving the educational needs of Northern Ontario students. The intent was to develop credit transfer pathways that provide maximum mobility and enhanced success for students pursuing health, wellness, and physical fitness-related credentials and vocations. In addition, further exploration and development of the bridging module concept, as recommended in Project 2017-24, is included.

Pathways from relevant college diploma programs into the Honours Bachelor of Kinesiology (HBK) program were explored and developed to provide maximum opportunity for education and workforce development to serve the needs of Northern Ontario communities. In addition, suggestions were presented identifying potential pathways from the HBK into relevant college diploma programs.

Therefore, the overall goals of this project were to:

1. Develop transfer pathways from health and fitness-related college diplomas to the HBK degree
2. Identify potential transfer pathways from the HBK degree to health and fitness-related college diplomas
3. Explore a “bridging” module concept from diploma programs to the HBK program
4. Increase awareness of and access to Northern-based post-secondary options

## Pathway Development

### Timeline

June 2018	<p>Conducted a preliminary review of programs offered at partner colleges to be considered for transfer pathway development. Programs were included based on</p> <ul style="list-style-type: none"> <li>• a focus on health, wellness, and/or physical fitness</li> <li>• logical connection and potential for overlap with the HBK program</li> <li>• previous experience regarding programs of interest for student transfer in either direction</li> <li>• suggestions from college partners</li> </ul>
July 2018	<p>Identified, collected, and organized all necessary data for assessing transfer credit between institutions, including Learner Outcomes, Competencies, Skill Sets, and Course Content.</p> <p>Translated Collège Boréal outlines from French to English.</p>
August 2018	<p>Conducted gap analysis using all sources of available course-related data to</p> <ul style="list-style-type: none"> <li>• Negotiate, establish, and confirm courses eligible for transfer credit through institutional collaboration</li> <li>• Identify overarching themes in required skill sets and gaps between various health, wellness, and physical fitness-related credentials to be explored further through consultations with faculty members/content experts</li> </ul>
September 2018	<p>Developed an electronic survey for each identified college program; surveys were informed by gap analysis and created to gather information and feedback from content experts.</p> <p>Distributed Round 1 of surveys (Cambrian, Northern, and Sault) to university faculty and college representatives.</p>
October 2018	<p>Distributed Round 2 of surveys (Boréal) to university faculty and college representatives.</p> <p>Collected, analyzed, and summarized Round 1 of surveys in preparation for face-to-face meetings.</p>

	<p>Conducted face-to-face meetings with representatives at Sault College to discuss</p> <ul style="list-style-type: none"> <li>• Laddering of learning and strategic sequencing of courses in light of transfer credit in relation to students reaching credential-level expectations</li> <li>• Structure and staging of courses/experiences/field experiences in transfer pathways</li> <li>• Cross-referencing course structure with relevant administrative policies and mandatory university and college course policies (e.g., Indigenous Content Requirements)</li> </ul> <p>Conducted face-to-face meetings with representatives at Northern College to discuss pathways in general and potential for partnership moving forward.</p>
November 2018	Collected, analyzed, and summarized Round 2 of surveys in preparation for face-to-face meetings.
December 2018	<p>Conducted face-to-face meetings with representatives at Cambrian College and Collège Boréal to discuss</p> <ul style="list-style-type: none"> <li>• Laddering of learning and strategic sequencing of courses in light of transfer credit in relation to students reaching credential-level expectations</li> <li>• Structure and staging of courses/experiences/field experiences in transfer pathways</li> <li>• Cross-referencing course structure with relevant administrative policies and mandatory university and college course policies (e.g., Indigenous Content Requirements)</li> </ul>
January 2019	<p>Combined, organized, and analyzed information gained from surveys and meetings to</p> <ul style="list-style-type: none"> <li>• Determine course equivalents and related considerations</li> <li>• Create an outline of transfer credits for each college program to the HBK program</li> <li>• Create an outline of suggested potential transfer credits from the HBK program to each college program</li> </ul> <p>Mapped specific pathways from each of the identified Cambrian, Boréal, and Sault college programs to the HBK program using course content and credit hour information (details of each pathway are included in the “Advanced Standing Transfer Pathways” section of this report).</p> <p>Conducted phone meeting with the Dean at Northern College;</p>

	<p>mutually decided not to continue pathway development at this time.</p> <p>Developed outline of general bridging module content.</p>
February 2019	<p>Identified and confirmed most appropriate direction for each pathway (diploma-to-degree, degree-to-diploma, bi-directional) based on presumed attractiveness for students, informed by previous experience and feedback.</p> <p>Confirmed details and finalized versions of diploma-to-degree transfer pathways, post-revision, with all institutional partners and stakeholders.</p> <p>Shared potential HBK to college program transfer credit suggestions with college partners for use in developing pathways to their programs from the HBK.</p> <p>Prepared final report.</p>
March 2019	<p>Process has been initiated for submission to Senate for approval of articulation agreements and program requirements for each of the six college to HBK recommended programs</p> <ul style="list-style-type: none"> <li>• Preparing appropriate documents for Lakehead Senate Submission Workflow (Curriculum Navigator Submission – Dean/Faculty Council – Quality Assurance – SAC – SUSC – Senate Budget – Final Senate).</li> </ul> <p>Support for College accelerated pathway approval processes will be provided by project staff.</p>

## Method

- Preliminary investigation into the interest in and potential for development of bi-directional transfer pathways from Ontario college health, wellness, and physical fitness-related programs to the HBK and from the HBK to college programs was completed in 2016.
- Initial meetings with representatives from Georgian College to discuss developing potential bi-directional pathways generated great interest in proceeding and led to application for and receipt of ONCAT grant 2017-24.
- Upon successful completion of Project 2017-24, a pan-northern approach was suggested to encompass other Northern Ontario colleges offering health, wellness, and physical fitness-related programs to create additional potential transfer pathways.
- In addition, Project 2017-24 identified the need to address gaps in academic preparation and educational support that could potentially impact the success of the transfer student.

- Cambrian College, Collège Boréal, Northern College, and Sault College were contacted and asked to support the application for ONCAT funding of an additional study to explore transfer pathways with health, wellness, and physical fitness-related programs from those institutions.
- Letters of support were provided for the project and the application was accepted and approved.
- HBK faculty and staff were informed that ONCAT funding had been received and they would be asked once again to engage in a process of review and comparison of specific HBK courses and related programs from the partner colleges.
- A preliminary review of program and course descriptions (available on college websites) by the Lakehead project team identified college programs for potential inclusion in pathway development (e.g., health, wellness, and physical fitness-related programs that include some logical overlap with Kinesiology). In some cases, college personnel identified additional programs to be included. Programs initially identified were:
  - Collège Boréal
    - Fitness & Health Promotion
    - Massage Therapy
    - Medical Radiation Technology
    - Occupational Therapy Assistant & Physiotherapy Assistant
    - Paramedic
    - Police Foundations
  - Cambrian College
    - Medical Laboratory Technology
    - Medical Radiation Technology
    - Paramedic
    - Physical Fitness Management
    - Police Foundations
  - Sault College
    - Fitness & Health Promotion
    - General Arts & Science - University Transfer
    - Occupational Therapist Assistant & Physiotherapist Assistant
    - Police Foundations
  - Northern College
    - Massage Therapy
    - Occupational Therapist Assistant/Physiotherapist Assistant
    - Paramedic
    - Police Foundations
    - Practical Nursing
- Course outlines and other relevant materials were requested from each college and obtained either online via college websites or via email from college personnel; course outlines from Collège Boréal were subsequently translated from French to English.
- Although initially identified for consideration, Massage Therapy and Occupational Therapist Assistant/Physiotherapist Assistant at Northern College were both suspended programs at the time of the program comparison; Massage Therapy was being revised for curriculum and

accreditation requirements, and Occupational Therapist Assistant/Physiotherapist Assistant did not have enough enrolment to be offered. Therefore, these programs were excluded from any further analysis.

- Excel spreadsheets were created for each of the remaining college programs and a general preliminary assessment of potential overlap between university and college courses was completed by the Lakehead project team.
- A request for course outlines and supplementary content was not fulfilled by representatives from Police Foundations at Sault College; this program was subsequently excluded from further analysis. Additionally, it was determined upon further review of the Police Foundations programs at Cambrian, Northern, and Boréal that any potential overlap was very minimal and that these programs should also be excluded from formal pathway development.
- Upon further review of General Arts & Science - University Transfer at Sault College, it was determined that any potential overlap was very minimal; that program was subsequently excluded from further analysis.
- A learner outcome/course outline review of all HBK courses was completed and spreadsheets were updated to reflect any new content.
- As with Project 2017-24, it was decided that the most accurate and efficient means of comparing and contrasting course content would be to have content experts – the instructional faculty and/or program coordinators at each institution – review course outlines and other relevant materials through completion of a survey.
- A series of surveys was developed in order to compare and contrast each diploma program with the HBK program. The focus in creating these surveys was ease of use, promotion of discussion with partners, and ultimately the bi-directional evaluation of courses and course content. Surveys were designed using Qualtrics software, which provided technical support, flexibility of questionnaire design, controlled distribution, simple monitoring of respondent progress, and ready access to results (see Appendix A).
- The survey link, along with relevant course outlines from each institution, was distributed via email to specific course faculty within the HBK program and to program representatives from Cambrian, Boréal, Northern, and Sault. Deadline dates for completion were established and communicated at the time of survey distribution.
- Telephone and email support was provided to the colleges, and personal support was provided to HBK faculty if questions arose.
- Despite multiple requests, there was no response from the Paramedic and Medical Laboratory Technology programs at Cambrian College; these programs were thus excluded from further analysis.
- Despite multiple requests and continued communication, no survey responses were received from Northern College. Face-to-face meetings were arranged with hopes that survey data would be collected at a later date.
- Completion of the surveys was tracked through the Qualtrics website and follow-up contact was made with survey respondents if/when survey questions were not totally completed or when the final survey was not submitted correctly.
- Results of the surveys were tabulated, level of agreement in evaluation was identified, variability in responses was noted and discussed, and survey summaries were compiled.

- Face-to-face follow-up meetings were arranged with Cambrian, Boréal, and Sault representatives to present and discuss the results, to answer any questions or concerns, and to gain greater clarity in relation to areas where there was little agreement in the survey results regarding transferability of course content in either direction. These meetings also provided an opportunity to further discuss the identified programs and course content that would potentially form the base for bi-directional pathway development, as well as any differences in content and granting of direct transfer credit for specific courses. A meeting was also arranged with Northern representatives to discuss potential for continuation of their involvement in the project.
- Information and insight gained from the surveys and the face-to-face meetings was analyzed and used to create an outline of transfer credits for each of the identified Cambrian, Boréal, and Sault college programs to the HBK program; as well, suggested credit outlines related to transfer of students from the HBK program to those same college programs were created, reflecting the bi-directional focus of the project.
- Following a telephone meeting between the Lakehead project team and the Dean of Health Sciences & Emergency Services at Northern College, it was mutually decided that pathway development between Lakehead and Northern would not continue at this time; there is potential to revisit this partnership in the future.
- The transfer credit outlines, along with consideration of credit hours, were then used to map specific pathways from each of the Cambrian, Boréal, and Sault college programs to the HBK program.
- Although specific diploma-to-degree pathways were mapped, and suggested degree-to-diploma credits were outlined, for each of the nine (9) college diploma programs (five at Boréal, two at Cambrian, and two at Sault), it was determined during the analysis process that some pathways would be most feasible in one direction or the other, rather than both directions (see “Analysis” section below for a more detailed description of this process).
- Transfer credit information for all pathways, as well as the proposed direction of each pathway, was communicated with college representatives; final recommendations for the direction of each pathway was confirmed.
- The outline of suggested degree-to-diploma transfer credit information was provided to partner college representatives to assist them in the development of potential pathways from the HBK to their respective diploma programs.

## Analysis

- As indicated in the Method section, a preliminary review by the Lakehead project team identified college programs for potential inclusion in pathway development; the resulting list of programs was further developed and refined with input from college representatives.
- An initial analysis of course descriptions, learner outcomes, and other relevant information was completed by the Lakehead project team to identify similar content between college and HBK courses.
- The Qualtrics survey tool provided a means for college and HBK representatives to compare specific course content and evaluate similarities/differences.
- Preliminary information gathered by the surveys included identification of college or

university affiliation, and identification of respondent as Dean, Department Head, Program Chair, or Teaching Faculty.

- Respondents were then asked to compare courses that had been initially identified by the Lakehead project team as potentially sharing content; to do so, they were asked to review course outline details, including course descriptions and learner outcomes, and then indicate which of the specific learner outcomes were shared between courses.
- Respondents also indicated, on a sliding scale between 0% and 100%, the extent that they felt there was overlap between the courses. They were also provided with a fillable text box to provide any additional relevant information.
- Survey responses were collected and a summary report was generated by the Qualtrics program.
- Responses from college and HBK representatives were compared to determine levels of agreement/disagreement regarding course content and potential overlap.
- These results were summarized in chart form (see Appendix B) and presented in person to Cambrian, Boréal, and Sault representatives for further review and discussion.
- Both survey responses and feedback from in-person meetings informed the creation of transfer credit outlines for each of the nine (9) college programs included (e.g., credits to be received by incoming college graduates when transferring to the HBK; suggested credits to be received by HBK graduates when transferring to each of the college programs).
- Transfer credit outlines were used to formally map individual pathways from each of the nine (9) included college programs to the HBK (see “Advanced Standing Transfer Pathways”).
- Although all nine (9) potential pathways (one for each included college program) were assessed for viability in both directions (to and from the HBK), it was determined that some pathways were most feasible in one direction or the other, rather than both.
  - The HBK program typically covers the majority of the content of Fitness & Health Promotion (FHP) programs, therefore students would not gain substantial additional education by pursuing a FHP diploma post-degree. Thus, pathways with FHP diplomas (Sault and Boréal) are being recommended in a diploma-to-degree direction only.
  - The Physical Fitness Management (FLBU) diploma program at Cambrian College, although similar to the FHP programs, additionally includes a strong business content in their 3-year program. HBK graduates interested in entrepreneurship would benefit from the additional business focus of the program. Therefore, bi-directionality is recommended for this pathway.
  - HBK graduates are often employed in occupational/physiotherapy clinics and perform duties similar to a graduate of an Occupational Therapist Assistant/Physiotherapist Assistant (OTAPTA) program; thus an HBK graduate seeking an additional diploma in this area is considered less likely. Therefore, diploma-to-degree pathways only are recommended with OTAPTA programs (Sault and Boréal).
  - Students enrolled in Medical Radiation Technology (MRT) and Paramedic (PM) diploma programs are well-equipped to enter the workforce directly after graduation, due to their highly-specialized skill set obtained through the diploma programs. Therefore, it is less likely that these graduates would seek further education in the form of an HBK degree. Pathways with MRT programs (Cambrian and Boréal) and



- the PM program (Boréal) are therefore recommended to be degree-to-diploma only.
- The combination of an HBK and Massage Therapy (MT) designation provides added value for a professional. Therefore, it is considered equally likely that students would be interested in moving both from a Massage Therapy (MT) program to the HBK, as well as from the HBK to a MT program. Thus, the pathway with the MT program (Boréal) is recommended to be bi-directional.
  - The most appropriate direction for each pathway was based on a) number of credits received in either direction, indicating congruence of programs; b) student demand, as evidenced by previous experience with students transferring to and from programs; and c) consultation with college representatives. This approach was also confirmed in consultation with the project's external reviewer.

The results of this project include:

- The development of six (6) proposed diploma-to-degree transfer pathways into the HBK from three partner colleges.
- The identification of five (5) suggested degree-to-diploma transfer pathways from the HBK to programs at three partner colleges.
- The development of an outline of general content to be included in a bridging module. The bridging module would be completed in an online format prior to program commencement, and would facilitate transfer to the HBK from three (3) of the college programs, specifically those identified as requiring additional anatomy and physiology content.

## **Advanced Standing Transfer Pathways**

As a result of the course comparisons and subsequent feasibility evaluation of each diploma-to-degree pathway, draft transfer programs to the HBK were developed for three Collège Boréal programs, one Cambrian College program, and two Sault College programs. Incoming students to the HBK will receive targeted programming aimed at enhancing and supporting the transfer experience. Areas of focus will include writing skills, analysis, familiarization with university resources, and other items specific to transfer students. Dependent on the specific transfer program, students may also be required to complete an online bridging module prior to the start of the HBK program. The bridging module content will focus on anatomy and human physiology to ensure students are best prepared to meet the demands and expectations of the HBK program.

Entry requirements include completion of the specified diploma with an overall minimum average of 75%. Traditionally this average is consistent with Lakehead University's transfer pathways, and is expected to increase the likelihood of student success.

Details on the specific requirements recommended for each transfer program, and the resulting curriculum of each pathway, are included below.

Graduates of the identified college programs may find completion of the HBK degree beneficial in expanding further educational options and in having the opportunity to gain recognition as a registered Kinesiologist, a regulated health professional in the province of Ontario.

Because the focus of this project was bi-directional, courses were identified from each college program that HBK graduates could be eligible to receive credit for, upon approval from college administration. While it was not within the scope of the Lakehead project team to develop these specific transfer pathways from the HBK to related college programs, the information was shared with college partners to assist them in the development of pathways from the HBK into their specific diploma programs.

## College Programs to Lakehead University HBK

### Cambrian Physical Fitness Management (FLBU) to HBK

The links between Cambrian FLBU and the HBK resulted in the recommendation for a two year transfer pathway. Eleven (11) full-course equivalents (FCEs) are required for completion, which includes 9 FCEs in Kinesiology required courses, 1 FCE in electives, and 1 FCE in required courses outside of Kinesiology. Students **ARE** required to complete the bridging module prior to program commencement. Figure 1 outlines the resulting recommended draft curriculum.

Cambrian FLBU is one of two programs (along with Boréal Massage Therapy) for which bi-directional pathways are suggested (e.g., both to and from the HBK). Information on the reverse, degree-to-diploma pathway is included in the “Suggested Lakehead University HBK to College Programs” section below.

	<b>Fall</b>		<b>Winter</b>	
<b>Spring/ Summer Prior to Year 1</b>	0517 - Kinesiology Program Preparation			
<b>Year 1 6 fce</b>	1015 - Transfer Course 1 1010 - Introduction 1035 - Motor Dev. 2015 - Biomechanics I 3230 - Research Processes	English - one of 1015, 1016, 1115, 1117, 1118	1017 - Transfer Course 2 1113 - Health 1711 - Movement Obs 2711 - Qualitative 3030 - Statistics	1210 - Chemistry
<b>Year 2 5 fce</b>	2035 - Motor Learning 2079 - Sociology 4310 - Ergonomics 4710 - Communication/Leadership 4193 - Outdoor Exp (Hiking)	.5 elective	3134 - Musculoskeletal Injuries I 3710 - Skill Acquisition 4113 - Lifestyle Counselling 4230 - Research (Yr-.5 FCE)	.5 elective
	<b>Courses to Bridge</b> 2011 2012 2030			

Figure 1. Cambrian FLBU college transfer program requirements.

### Boréal Fitness & Health Promotion (FHP) to HBK

The links between Boréal FHP and the HBK resulted in the recommendation for a two year transfer pathway. Eleven (11) FCEs are required for completion, which includes 8 FCEs in Kinesiology required courses, 2 FCE in electives, and 1 FCE in required courses outside of Kinesiology. Students **ARE** required to complete the bridging module prior to program commencement. Figure 2 outlines the resulting recommended draft curriculum.

	<b>Fall</b>		<b>Winter</b>	
<b>Spring/ Summer Prior to Year 1</b>	0517 - Kinesiology Program Preparation			
<b>Year 1 6 fce</b>	1015 - Transfer Course 1 1010 - Introduction 1035 - Motor Dev. 2015 - Biomechanics I 3230 - Research Processes	1116 - English	1017 - Transfer Course 2 2711 - Qualitative 3030 - Statistics	1210 - Chemistry .5 elective .5 elective
<b>Year 2 5 fce</b>	2079 - Sociology 3070 - Intro to Adapted 4310 - Ergonomics 4710 - Communication/Leadership  4193 - Outdoor Exp (Hiking)	.5 elective	3134 - Musculoskeletal Injuries I 3710 - Skill Acquisition 4113 - Lifestyle Counselling  4230 - Research (Yr-.5 FCE)	.5 elective
	<b>Courses to Bridge</b> 2011 2012 2030			

Figure 2. Boréal FHP college transfer program requirements.

### Sault Fitness & Health Promotion (FHP) to HBK

The links between Sault FHP and the HBK resulted in the recommendation for a two-and-one-half year transfer pathway. Fourteen (14) FCEs are required for completion, which includes 9.5 FCEs in Kinesiology required courses, 2.5 FCEs in electives, and 2 FCEs in required courses outside of Kinesiology. Students **ARE NOT** required to complete the bridging module prior to program commencement. Figure 3 outlines the resulting recommended draft curriculum.

	<b>Fall</b>		<b>Winter</b>	
<b>Year 1</b> <b>6 fce</b>	1015 - Transfer Course 1 1010 - Introduction 1035 - Motor Dev. 2015 - Biomechanics I 3230 - Research Processes	1116 - English	1017 - Transfer Course 2 1711 - Movement Obs 3030 - Statistics	1210 - Chemistry 2012 - Biology 2030 - Biology
<b>Year 2</b> <b>6 fce</b>	2035 - Motor Learning 2079 - Sociology 3070 - Intro to Adapted 4310 - Ergonomics 4710 - Communication/Leadership 4193 - Outdoor Exp (Hiking)	.5 elective	2059 - Psychology 2711 - Qualitative 3134 - Musculoskeletal Injuries I 3710 - Skill Acquisition 4113 - Lifestyle Counselling 4230 - Research (Yr-.5 FCE)	
<b>Year 3</b> <b>2 fce</b>	.5 elective .5 elective .5 elective .5 elective Note: Kinesiology electives suggested, but not required			
	<b>Courses to Bridge</b> None			

Figure 3. Sault FHP college transfer program requirements.

### Boréal Massage Therapy (MT) to HBK

The links between Boréal MT and the HBK resulted in the recommendation for a three year transfer pathway. Fifteen (15) FCEs are required for completion, which includes 11.5 FCEs in Kinesiology required courses, 2.5 FCEs in electives, and 1 FCE in required courses outside of Kinesiology. Students **ARE** required to complete the bridging module prior to program commencement. Figure 4 outlines the resulting recommended draft curriculum.

Boréal Massage Therapy is one of two programs (along with Cambrian FLBU) for which bi-directional pathways are suggested (e.g., both to and from the HBK). Information on the reverse, degree-to-diploma pathway is included in the “Suggested Lakehead University HBK to College Programs” section below.

	<b>Fall</b>		<b>Winter</b>	
<b>Spring/ Summer Prior to Year 1</b>	0517 - Kinesiology Program Preparation			
<b>Year 1 5 fce</b>	1015 - Transfer Course 1 1010 - Introduction 1035 - Motor Dev. 1710 - Fitness/Wellness	1116 - English	1017 - Transfer Course 2 1113 - Health 1711 - Movement Obs 2059 - Psychology	1210 - Chemistry
<b>Year 2 5 fce</b>	2015 - Biomechanics I 2035 - Motor Learning 2079 - Sociology 3010 - Physiology I 3230 - Research Processes		2711 - Qualitative 3030 - Statistics 3610 - Nutrition	.5 elective .5 elective
<b>Year 3 5 fce</b>	3070 - Intro to Adapted 3711 - Exercise Prescription 4310 - Ergonomics 4710 - Communication/Leadership  4193 - Outdoor Exp (Hiking)	.5 elective	3710 - Skill Acquisition 4113 - Lifestyle Counselling  4230 - Research (Yr-.5 FCE)	.5 elective .5 elective
<b>Courses to Bridge</b>	2011 2012 2030			

Figure 4. Boréal MT college transfer program requirements.

## Boréal Occupational Therapy Assistant / Physiotherapy Assistant (OTAPTA) to HBK

The links between Boréal OTAPTA and the HBK resulted in the recommendation for a three year transfer pathway. Sixteen (16) FCEs are required for completion, which includes 11.5 FCEs in Kinesiology required courses, 2.5 FCEs in electives, and 2 FCEs in required courses outside of Kinesiology. Students **ARE NOT** required to complete the bridging module prior to program commencement. Figure 5 outlines the resulting recommended draft curriculum.

	<b>Fall</b>		<b>Winter</b>	
<b>Year 1</b> <b>5.5 fce</b>	1015 - Transfer course 1 1010 - Introduction 1035 - Motor Dev. 1710 - Fitness/Wellness 2015 - Biomechanics I	1116 - English (or winter)	1017 - Transfer course 2 1113 - Health 1711 - Movement Obs 2711 - Qualitative	1210 - Chemistry
<b>Year 2</b> <b>5.5 fce</b>	2035 - Motor Learning 2079 - Sociology 3070 - Intro to Adapted 3230 - Research Processes	.5 elective .5 elective (or one in winter)	2059 - Psychology 3030 - Statistics 3710 - Skill Acquisition	2012 - Biology 2030 - Biology
<b>Year 3</b> <b>5 fce</b>	3010 - Physiology I 3711 - Exercise Prescription 4310 - Ergonomics 4710 - Communication/Leadership  4193 - Outdoor Exp (Hiking)	.5 elective	3610 - Nutrition 4113 - Lifestyle Counselling  4230 - Research (Yr-.5 FCE)	.5 elective .5 elective
<b>Courses to Bridge</b>	None			

Figure 4. Boréal OTAPTA college transfer program requirements.

## Sault Occupational Therapist Assistant / Physiotherapist Assistant (OTAPTA) to HBK

The links between Sault OTAPTA and the HBK resulted in the recommendation for a three year transfer pathway. Sixteen (16) FCEs are required for completion, which includes 11 FCEs in Kinesiology required courses, 3 FCEs in electives, and 2 FCEs in required courses outside of Kinesiology. Students **ARE NOT** required to complete the bridging module prior to program commencement. Figure 6 outlines the resulting recommended draft curriculum.

	<b>Fall</b>		<b>Winter</b>	
<b>Year 1</b> <b>5.5 fce</b>	1015 - Transfer course 1 1010 - Introduction 1710 - Fitness/Wellness 2015 - Biomechanics I	1116 - English .5 elective (or one in winter)	1017 - Transfer course 2 1711 - Movement Obs 2711 - Qualitative	1210 - Chemistry .5 elective
<b>Year 2</b> <b>5.5 fce</b>	2035 - Motor Learning 2079 - Sociology 3070 - Intro to Adapted 3230 - Research Processes	.5 elective .5 elective (or one in winter)	2059 - Psychology 3030 - Statistics 3710 - Skill Acquisition	2012 - Biology 2030 - Biology
<b>Year 3</b> <b>5 fce</b>	3010 - Physiology I 3711 - Exercise Prescription 4310 - Ergonomics 4710 - Communication/Leadership  4193 - Outdoor Exp (Hiking)	.5 elective	3134 - Musculoskeletal Injuries I 3610 - Nutrition 4113 - Lifestyle Counselling  4230 - Research (Yr-.5 FCE)	.5 elective
<b>Courses to Bridge</b>	None			

Figure 6. Sault OTAPTA college transfer program requirements.



## **Suggested Lakehead University HBK to College Programs**

### **HBK to Cambrian Physical Fitness Management (FLBU)**

There is quite a bit of similar content between the Lakehead HBK program and the FLBU program at Cambrian College, specifically in areas related to physical fitness. When considering the most appropriate direction for each transfer pathway (e.g., diploma-to-degree, degree-to-diploma, bi-directional), it was determined that the business-focused content of the FLBU would likely be appealing to HBK graduates seeking to become business owners or entrepreneurs. Thus, a bi-directional pathway is being recommended.

According to the results of the collaborative program comparisons, Lakehead graduates transferring to Cambrian could potentially receive credit for 11 required courses. An example of the proposed transfer credits outline is included in Appendix C.

### **HBK to Boréal Paramedic (PM)**

Due to similar content related to human anatomy and physiology, as well as lifespan development, HBK graduates could potentially receive credit for 5 required PM courses, including one general education elective.

### **HBK to Boréal Massage Therapy (MT)**

Graduates of the Lakehead HBK program have foundational and working knowledge of human anatomy and physiology, physical exercise, and interpersonal communication. Furthermore, it would likely be equally attractive for an HBK grad to add a certification in an area like massage as it would be for MT graduates to further their education with a university degree. Therefore, it is being recommended that pathways between the HBK and Boréal MT are bi-directional.

HBK graduates could potentially receive credit for 8 required MT courses, including one general education elective.

### **HBK to Boréal Medical Radiation Technology (MRT)**

HBK graduates' previous education related to anatomy, physiology, and interpersonal communication covers some of the required content of the MRT program. HBK graduates could potentially receive credit for 5 required MRT courses, including one general elective.

### **HBK to Cambrian Medical Radiation Technology (MRT)**

Because of similar content related to human anatomy and physiology, research, and health and wellness, HBK graduates could potentially receive credit for 5 required MRT courses.

## Implementation Process and Timelines

Due to the nature of the bi-cameral governing system at Ontario Universities, new program modifications related to articulation agreements and advanced standing transfer at Lakehead University must pass through an intensive review process. An articulation agreement must be approved by the university and college partners; additionally, curriculum and program review must be approved by Lakehead University Senate.

At the time of this report, the process for approvals has been initiated for the six (6) programs identified for transfer from the college diploma programs to the HBK program.

Resulting information from the course comparison process has been shared with each of the colleges, and they have been requested to review the information and consider initiation of the required approval process within their institutions for degree-to-diploma transfer.

<b>Transfer Pathway</b>	<b>Current Approval Level</b>	<b>Target Implementation Date</b>
Cambrian FLBU Boréal FHP Sault FHP Sault OTAPTA Boréal OTAPTA Boréal MT  to Lakehead HBK	Draft recommendation has been completed and shared with the college partner. First stage of Lakehead approval, the School of Kinesiology faculty, has been initiated. Senate documentation has been prepared.	Fall 2020
Lakehead HBK to  Cambrian FLBU Boréal MT Boréal PM Boréal MRT Cambrian MRT	Recommendations have been provided to college partners; further pathway development and approvals to continue at the college level.	

## Bridge Curriculum

The current project further explored the concept of an online bridging module to address differences in depth and breadth of content between similar college and university courses. The most commonly identified areas requiring such bridging were anatomy and human physiology. By completing a bridging module prior to commencement of the HBK program, it is anticipated that transfer students will be appropriately equipped to be successful in courses where anatomy and human physiology are prerequisites. As a result of the course comparison process completed through the current project, a general outline of content and proposed mode of delivery was produced for the bridging module (see Appendix D). The development of the detailed content and specific delivery were beyond the scope of this project.

## Best Practices and Lessons Learned

The current project benefited from knowledge gained through the previous Project 2017-24, which highlighted the importance of collaboration and communication between institutions, a focus on bi-directional student mobility, and the importance of considering factors beyond academic study when seeking to enhance the student transfer experience. Each of these previous lessons was at the forefront of the current project, and guided its completion.

Firstly, incorporating opportunities for institutional collaboration and communication was an important factor in completing the current project. The feedback from content experts from both the university and the colleges was paramount in determining course equivalencies and transfer credits, and thus strengthens the resulting pathways by having input from both sides. It is anticipated that this will also benefit the “real-life” application of the pathways as they move from conception to implementation.

Additionally, one of the initial goals of the project was to increase awareness of and access to Northern-based post-secondary educational options. The collaborative process has served to increase this awareness between institutional representatives (e.g., members of the project team, program coordinators, and faculty members) such that knowledge of program options can be communicated with students; this is evidenced by the fact that there has been communication received from some of the partner colleges indicating increased interest in the HBK from current diploma students.

Secondly, similar to Project 2017-24, the current project sought to develop the foundation for bi-directional transfer pathways that represented both a reciprocal relationship between university and college programs, as well as enhanced student mobility. However, rather than simply assuming that every pathway between the HBK and related college programs should be made bi-directional, the current project brought the realization that the actual feasibility and appeal of each pathway, in relation to student demand, needs also to be considered. Thus, an additional level of analysis was employed in which each pathway was assessed for viability, with the result being that some of the pathways are proposed as diploma-to-degree, some as degree-to-diploma, and some as bi-directional (see Appendix E). It is anticipated that narrowing focus in this way will provide more clarity in promoting the pathways to potential students.

Thirdly, communication with college partners, as well as with current and potential future transfer students, has provided anecdotal evidence that the way in which students experience the transfer process extends beyond academic study. For example, although this project sought to develop pathways based on course comparisons and academic credits - and was successful in doing so - there are additional factors to consider. In order to create a successful and meaningful transfer experience for students, representatives from either side of the pathways can influence and guide the process through efforts such as promoting pathways to potential students, connecting current and potential transfer students to encourage peer support and mentorship, maintaining relationships between institutions, and offering specific

institutional resources and information.

Finally, the development of pathways is only the first step. To ensure the long-term viability and possible expansion of these pathways, it is necessary that they are consistently monitored, evaluated, and revised to reflect the current state of institutions, programs, and students.

## Appendix A

### Example of Course Equivalency Survey Questions

. College or University affiliation

Lakehead University

Cambrian College

. Completing this survey as

Dean

Department Head

Program Chair

Teaching Faculty



4.

PFM	HBK
FLM 1101 Mental Training For Exercise	KINE2059 Psychology of Physical Activity
<p>In this course, students will be introduced to the principles of applying psychology to sport and exercise contexts. Specifically, they will examine various mental training theories and techniques in order to understand their importance in achieving optimal physical performance. Participant characteristics such as motivation, arousal, anxiety, and burnout will be discussed, along with various psychological skills required to regulate these factors to improve performance. Students will also learn how to implement coaching techniques and create exercise environments that lead to increased learning from participants.</p>	<p>Introduces students to fundamental psychological theories and constructs relevant to behaviour, cognition, and affect in physical activity contexts. Included are discussions regarding the measurement of psychological constructs and the practical application of physical activity psychology theory/research. Theories and their related constructs, including those pertinent to exercise, sport, and health contexts, are examined in a variety of populations.</p>

**4A. HBK Respondents** - Please indicate which of the following **learner outcomes** are covered by your course - e.g., the course you teach/represent at your institution (check all that apply).

**FLM 1101 Mental Training For Exercise**

Describe the field of Sport and Exercise Psychology and how it is currently used in interventions.

Describe how the principles of motivation, competition, and cooperation can be applied to sport and exercise settings in order to develop higher levels of performance among participants.

Identify and describe the roles of Feedback and Reinforcement in a sport and exercise environment.

Describe the various characteristics that are required for effective team dynamics and cohesion.

Explain the importance of applying various forms of Psychological Skills Training in order to improve and maintain sport and exercise performance.

Describe how mental training can be used to assist in athletic injury recovery and prevention of burnout and overtraining.

---

**4B.** Please provide any relevant additional information, if applicable - e.g., identification of learning outcomes that are only partly covered by your course, other considerations based on course outline content, etc.

---

**4C.** Based on your review of the course outline and content, to what extent do you feel there is overlap between the above courses?

0      10      20      30      40      50      60      70      80      90      100





**4D. PFM Respondents** - Please indicate which of the following **learner outcomes/topics** are covered by your course - e.g., the course you teach/represent at your institution (check all that apply).

**KINE2059 Psychology of Physical Activity**

Explain major theories and concepts within the psychology of physical activity, compare those theories and concepts, and apply them to "real life" contexts.

Demonstrate basic knowledge regarding the history of the psychology of physical activity and the production of knowledge within the field.

Clearly express their thoughts on, and understanding of, course material through written and verbal discourse.

Demonstrate the ability to think creatively, critically, and analytically.

**4E.** Please provide any relevant additional information, if applicable - e.g., identification of learning outcomes that are only partly covered by your course, other considerations based on course outline content, etc.

**4F.** Based on your review of the course outline and content, to what extent do you feel there is overlap between the above courses?

0      10      20      30      40      50      60      70      80      90      100



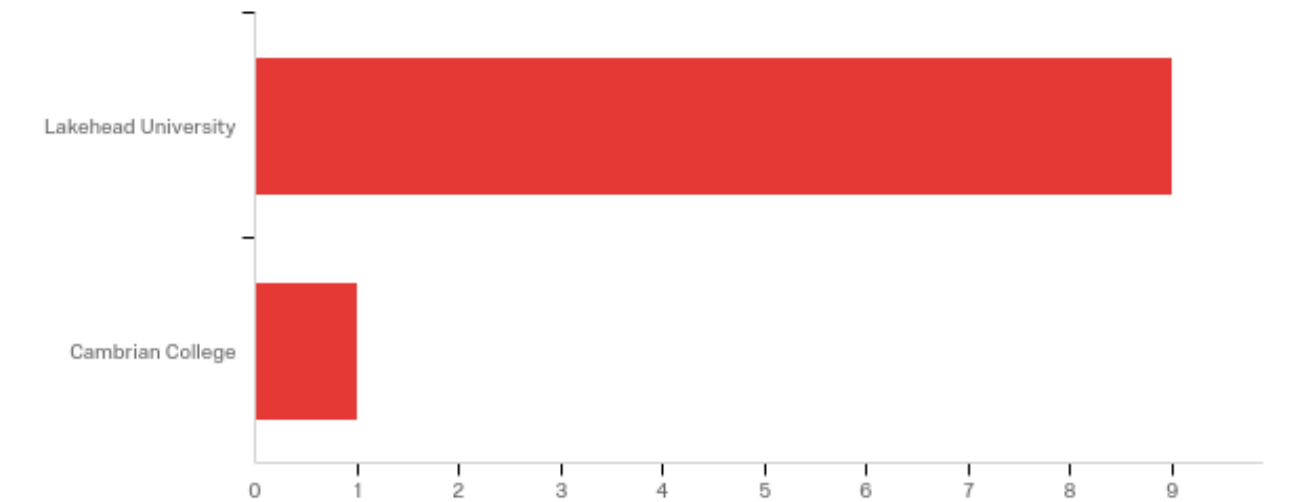
Appendix B

Example of Survey Summary Report

Default Report

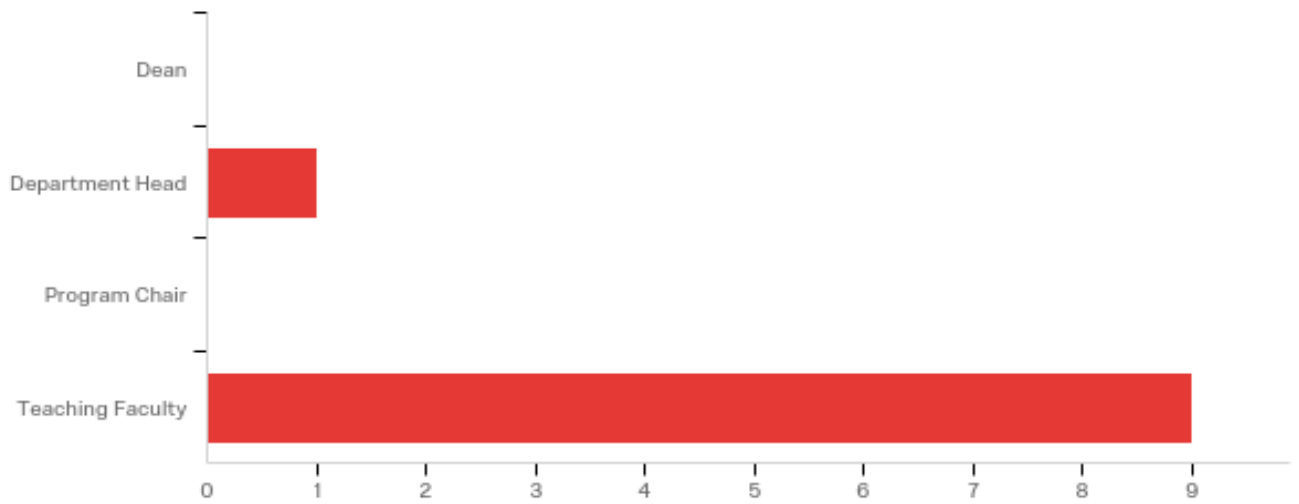
Cambrian Physical Fitness Management

QID45 - College or University affiliation



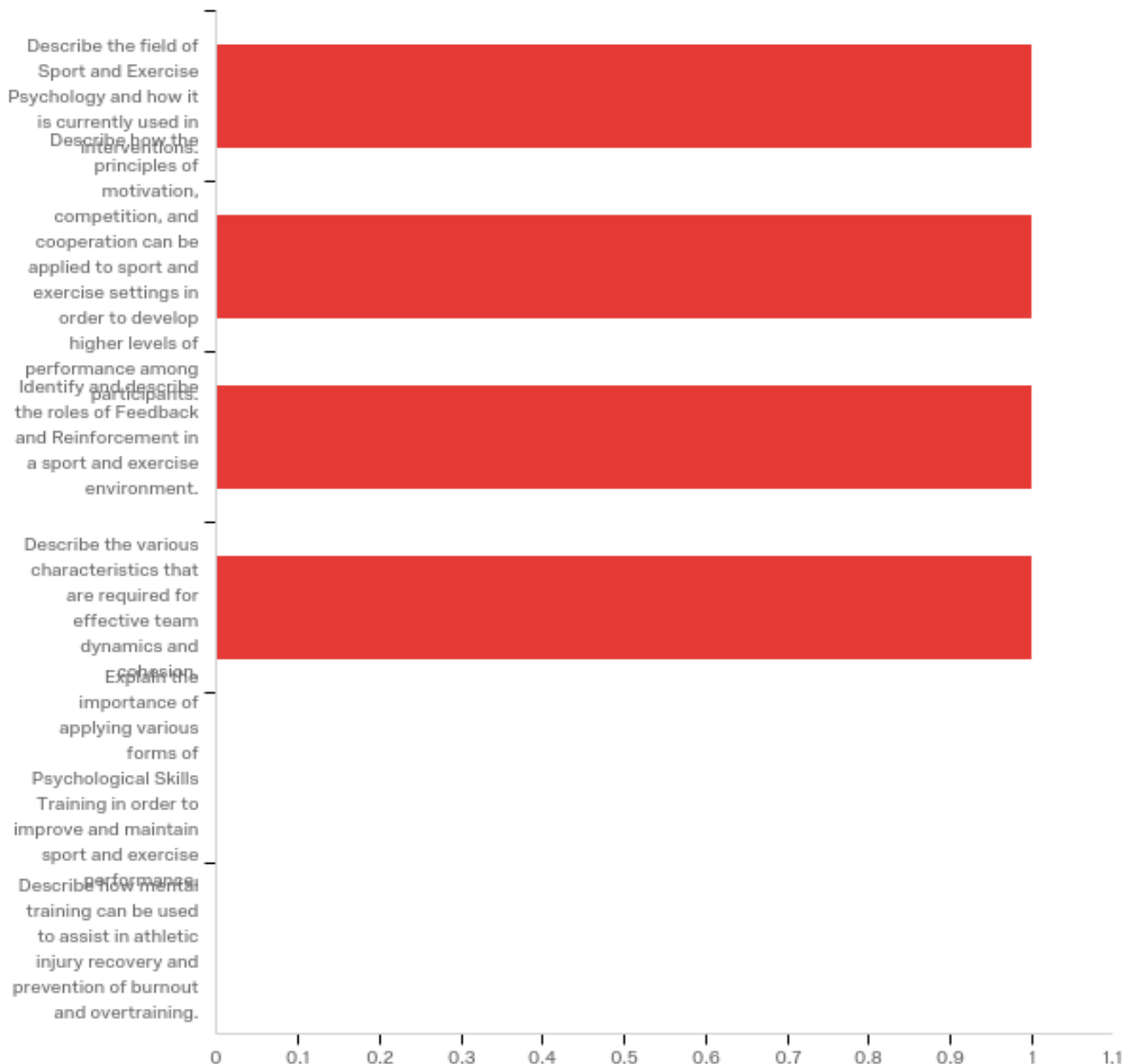
#	Answer	%	Count
1	Lakehead University	90.00%	9
2	Cambrian College	10.00%	1
	Total	100%	10

## QID46 - Completing this survey as



#	Answer	%	Count
1	Dean	0.00%	0
2	Department Head	10.00%	1
3	Program Chair	0.00%	0
4	Teaching Faculty	90.00%	9
	Total	100%	10

**4A - HBK Respondents - Please indicate which of the following learner outcomes are covered by your course - e.g., the course you teach/represent at your institution (check all that apply). FLM 1101 Mental Training For Exercise**



**4B - Please provide any relevant additional information, if applicable - e.g., identification of learning outcomes that are only partly covered by your course, other considerations based on course outline content, etc.**

Please provide any relevant additional information, if applicable - e.g., identification of learning outcomes that are only partly covered by your course, other considerations based on course outline content, etc.

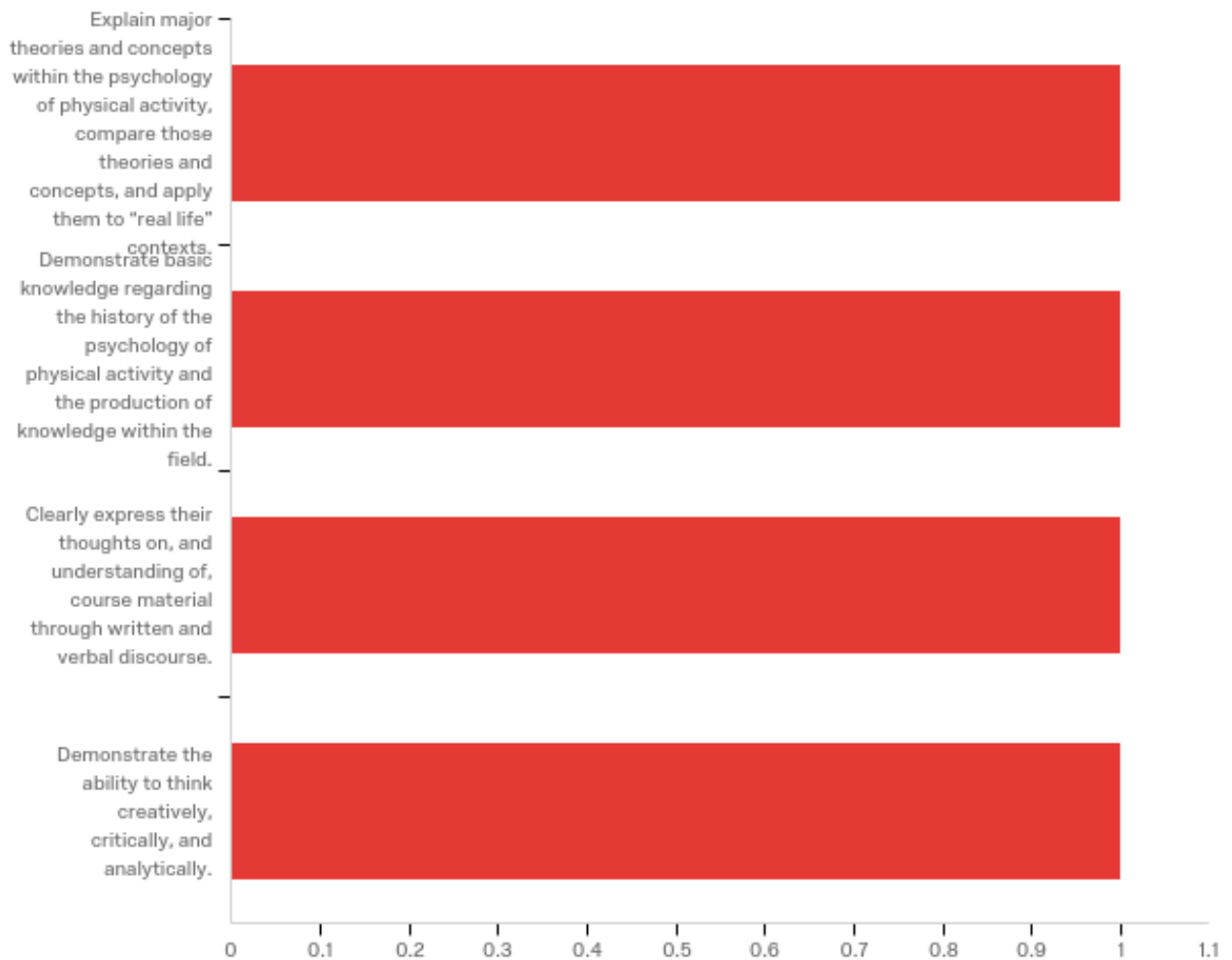
---

*I cover the psychological skills and mental training in KINE 4059. The two objectives that aren't marked above would overlap well with KINE 4059.*

**4C - Based on your review of the course outline and content, to what extent do you feel there is overlap between the above courses?**

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	1	66.00	66.00	66.00	0.00	0.00	1

**4D - PFM Respondents - Please indicate which of the following learner outcomes/topics are covered by your course - e.g., the course you teach/represent at your institution (check all that apply). KINE2059 Psychology of Physical Activity**



**4E - Please provide any relevant additional information, if applicable - e.g., identification of learning outcomes that are only partly covered by your course, other considerations based on course outline content, etc.**

Please provide any relevant additional information, if applicable - e.g., identification of learning outcomes that are only partly covered by your course, other considerations based on course outline content, etc.

---

*Students will learn a variety of theories on 10 Sport Psychology topics, with each chapter outlining how these concepts can be applied in a practical setting. They also have a workshop to complete with a certified Sports Consultant, and produce written critical thinking essays as well.*

**4F - Based on your review of the course outline and content, to what extent do you feel there is overlap between the above courses?**

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	1	100.00	100.00	100.00	0.00	0.00	1

## Appendix C

### Example of Transfer Credits Outline

#### *Lakehead to Cambrian Transfer*

FLBU Courses	HBK Potential Transfer Credits – <i>blue</i>
<b>Semester 1</b>	<b>Semester 1</b>
BIO 1009 Applied Anatomy Kinesiology I	X
ENG 1002 College Communications	X
FLM 1004 Fitness I	FLM 1004 Fitness I
FLM 1101 Mental Training For Exercise	X
FLM 1150 Group Exercise and Wellness	X
FLM 1225 Leisure Leadership	FLM 1225 Leisure Leadership
SOC 1007 Intro to Indigenous Studies	SOC 1007 Intro to Indigenous Studies
<b>Semester 2</b>	<b>Semester 2</b>
BIO 1007 Applied Anatomy Kinesiology II	X
ENG 1200 Effective Presentation Skills	ENG 1200 Effective Presentation Skills
FLM 1005 Fitness II	FLM 1005 Fitness II
FLM 1250 Circuit/Resistance Training I	FLM 1250 Circuit/Resistance Training I
FLM 1275 Stress Management	FLM 1275 Stress Management
FLM 2400 Nutrition	X
<b>Semester 3</b>	<b>Semester 3</b>
ACC 1220 Business Records	ACC 1220 Business Records
FLM 2316 Physiology Of Exercise	X
FLM 2350 Resistance Training II	FLM 2350 Resistance Training II
FLM 2421 Career Development	FLM 2421 Career Development
FLM 3505 Program and Event Management	FLM 3505 Program and Event Management
<i>One of -</i> PSY 1003 Concurrent Disorders, Mental Health Addictions PSY 1125 Positive Psychology	X
<b>Semester 4</b>	<b>Semester 4</b>
FLM 1002 Fitness For Youth	FLM 1002 Fitness For Youth
FLM 2440 Fitness Appraisal/Training I	X
FLM 3410 Leisure and Recreation Trends	FLM 3410 Leisure and Recreation Trends
FLM 3640 Facilities Management	FLM 3640 Facilities Management
FLM 1006 Ex. For Older Adults	FLM 1006 Ex. For Older Adults
MKT 1104 Marketing Essentials	MKT 1104 Marketing Essentials
<i>One of -</i> GER 1200 Introduction To Gerontology SCI 1001 Human Sexuality	<i>One of -</i> GER 1200 Introduction To Gerontology SCI 1001 Human Sexuality
<b>Semester 5</b>	<b>Semester 5</b>
FLM 1003 Team Sports Leadership	FLM 1003 Team Sports Leadership
FLM 2446 Fitness Appraisal/Training II	FLM 2446 Fitness Appraisal/Training II
FLM 3400 Sport Injuries Ex. Therapy	X
FLM 3500 Ex. For Special Populations	X
MKT 3680 Professional Selling	MKT 3680 Professional Selling
<b>Semester 6</b>	<b>Semester 6</b>
FLM 2700 Coop Work Term I	FLM 2700 Coop Work Term I



## Appendix D

### Draft of Bridging Module General Content Outline

#### **KINE0517 – Kinesiology Program Preparation Bridging Module – General Content Outline**

##### **Unit 1 – Introductory and Foundational Material / Skeletal System**

- Introduction to Anatomy of the Human Body
- Introduction to Physiology of the Human Body
- Overview of the Skeletal System
- Axial Division of the Skeletal System
- Appendicular Division of the Skeletal System
- Joints

##### **Unit 2 – Connective Tissue and Integumentary System**

- Connective Tissue – Composition
- Connective Tissue – Types
- Integumentary System – Structure
- Integumentary System – Function

##### **Unit 3 - Muscular System I**

- Muscle Tissue
- Muscle Physiology
- Muscles of Facial Expression
- Muscles of the Upper Extremity

##### **Unit 4 - Muscular System II**

- Muscles of the lower extremity
- Muscles of the abdominal wall
- Muscles that move the head and spine
- Muscles of the pelvic floor
- Muscles which move the chest wall

##### **Unit 5 - Nervous and Endocrine Systems**

- Nervous System - Organization
- Nervous System - Gross Anatomy
- Neurophysiology
- Endocrine System

##### **Unit 6 - Respiratory System**

- Structure and Functions of the Respiratory System
- Respiratory Physiology

**Unit 7 - Circulatory System**

- Microscopic Anatomy
- General functions
- Heart
- Arterial blood vessels
- Venous blood vessels
- Cardiovascular Physiology
- Fetal circulation
- Lymphatic System

**Unit 8 - Sensory Structures / Digestive System**

- Sensory structures
- Digestive System

**Unit 9 - Urinary System / Reproductive System**

- Urinary System
- Excretion & Osmoregulation
- Reproductive System

## Appendix E

### Schematic of Proposed Transfer Pathways

