



NUTR*3070 Nutrition and Physical Activity Interventions

COURSE OUTLINE – WINTER 2023

1. CALENDAR DESCRIPTION

This course examines the development, implementation, and evaluation of a) integrated interventions to improve both nutrition and physical activity behaviours and b) interventions to improve physical activity behaviours of people of different ages in various settings. Various theories and models used to develop nutrition and physical activity interventions will be examined.

Credit Weight: 0.5 credits
Course Hours: 3-0 (36 lecture; 0 lab/seminar)
Pre-Requisite(s): FRHD*3070, NUTR*2050
Co-Requisites(s): None
Restriction(s):

This is a Priority Access Course. Enrolment may be restricted to particular programs or specializations or semester levels during certain periods. See departmental website for more information.

2. COURSE DESCRIPTION

This course examines the development, implementation, and evaluation of theory-based interventions to increase physical activity behaviour, decrease sedentary behaviour, and increase healthy dietary behaviour. The course will first examine fundamental content about behaviours measurements and then focus on various behaviour change theories and models used to develop physical activity, non-sedentary, and nutrition interventions.

3. TIMETABLE

Lecture: Tuesday and Thursday, 4:00 - 5:20 pm
Location: MACS 209
Final Exam: None

4. INSTRUCTIONAL SUPPORT

Course Instructor: Brian Lo, PhD, MPH

Email: brian.lo@uoguelph.ca
Telephone: 519-824-4120 ext. 52419
Office: Macdonald Institute (MINS), Room 215
Office Hours: By appointment

Teaching Assistant: Yangyang (Sylvia) Sun
Email: ysun15@uoguelph.ca
Office Hours: By appointment

The TA will be available by appointment to meet with you if you have questions related to the assignments, readings, lectures, and quizzes.

5. LEARNING RESOURCES

Required Resource(s):

There is no textbook for this course. Links to required readings will be provided here in the course outline or on CourseLink.

Recommended Resource(s):

Theory-focused book: DiClemente RJ, Salazar LF, Crosby RA. Health behavior theory for public health: Principles, foundations, and applications. Second Edition. Jones & Bartlett Publishers; 2018. Free e-book copies are available at the University of Guelph Library.

Nancy Birch (Librarian, Learning and Curriculum Support, McLaughlin Library, U of G) is available for individual research consultations if you require help finding, using, or evaluating sources for your assignment. You can make an appointment by emailing her at nbirch@uoguelph.ca. Also, you can obtain library support via <http://www.lib.uoguelph.ca/ask-us>.

Staff in Research & Scholarship in the library are available to provide statistics consultation to students in this course. I strongly encourage you to make an appointment with staff if you want assistance to enhance your understanding of the statistics used in the required readings: <https://www.lib.uoguelph.ca/about/about-our-teams/research-scholarship>

6. LEARNING OUTCOMES

At the completion of the course, successful students will be able to:

1. Identify (a) how physical activity and sedentariness are conceptualized, (b) the benefits of being physically active and not sedentary, (c) how physical activity, sedentary behaviours and dietary behaviours are measured, (d) measurement issues

common to physical activity, sedentary and dietary behaviours, and (e) recommendations regarding level of physical activity and sedentary behaviours.

2. Apply various approaches, theories, and models used to develop, implement, and evaluate interventions to increase physical activity behaviour, decrease sedentary behaviour, and increase healthy dietary behaviour.
3. Communicate effectively (in both writing and oral presentation) about scientific research.
4. Develop a theory- and empirical-based intervention to increase physical activity behaviour, decrease sedentary behaviour, or increase healthy dietary behaviour.
5. Apply ethical considerations in planning behaviour change interventions.
6. Provide constructive feedback to peers.

7. TEACHING AND LEARNING ACTIVITIES

Week	Date	Topics	Format	Assigned Readings & Guest Speakers	Notes & Due Dates
1	Tues. Jan 10	Course introduction	In-person	Course syllabus CourseLink	
	Thurs. Jan 12	Conceptualizing physical activity and sedentary behaviours and recommendations	Virtual - live	Becky Breau, PhD Research Coordinator, Fowler Kennedy Sport Medicine Clinic Join Zoom Meeting https://zoom.us/j/6662900522?pwd=djFjbm1tWXp6Mk5rQWpaTFhXNVhTUT09 Meeting ID: 666 290 0522 Passcode: nutr3070	
2	Tues. Jan 17	Measuring physical activity and sedentary behaviours	In-person	Becky Breau, PhD Research Coordinator, Fowler Kennedy Sport Medicine Clinic	
	Thurs. Jan 19	Measuring dietary behaviours	In-person	https://www.nccor.org/tools-mruserguides/individual-diet/overview-of-individual-diet-measures/ https://www.nccor.org/tools-mruserguides/individual-diet/selecting-measures/	

Week	Date	Topics	Format	Assigned Readings & Guest Speakers	Notes & Due Dates
3	Tues. Jan 24	Ecological Momentary Assessment	Virtual - live	Shirlene Wang, PhD Candidate Health Behavior Research, University of Southern California Join Zoom Meeting https://zoom.us/j/6662900522?pwd=djFjbm1tWXp6Mk5rQWpaTFhXNVhTUT09 Meeting ID: 666 290 0522 Passcode: nutr3070	
	Thurs. Jan 26	Overview of literature search and literature review	In-person	Nancy Birch, MIST, OCT Associate Librarian, Learning and Curriculum Support Team	
4	Tues. Jan 31	Intervention study designs and study bias	In-person	Aggarwal R, Ranganathan P. Study designs: Part 4—interventional studies. Perspectives in Clinical Research. 2019;10(3):137.	Quiz 1 (week 1 - 3 materials): in class
	Thurs. Feb 2	Research ethics	In-person	Katelyn Wadleigh Manager, Research Ethics Office of Research Services, University of Guelph https://tcps2core.ca/welcome	REB training due: Feb 2 at 23:59pm
5	Tues. Feb 7	Final project introduction	In-person	Final project outline on CourseLink	
	Thurs. Feb 9	COM-B model & the behaviour change wheel	In-person	Michie, S., Van Stralen, M. M., & West, R. (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implementation Science,6(1), 42. Moore, A. P., Rivas, C. A., Stanton-Fay, S., Harding, S., & Goff, L. M. (2019). Designing the Healthy Eating and Active Lifestyles for Diabetes (HEAL-D) self-management and support programme for UK African and Caribbean communities: a culturally tailored, complex intervention under-pinned by behaviour change theory. BMC Public Health,19(1), 1146	

Week	Date	Topics	Format	Assigned Readings & Guest Speakers	Notes & Due Dates
6	Tues. Feb 14	Health belief model	In-person	Wright L, Arce KS, Himmelgreen D, Epps JB. Farm2Fork: use of the health belief model to increase fresh fruit and vegetable intake among food pantry participants. Journal of Hunger & Environmental Nutrition. 2019;14(1-2):252-261. Reading guiding questions	Quiz 2 (week 4 – 5 materials): in class
	Thurs. Feb 16	Theory of planned behaviour	In-person	Khani Jeihooni A, Rakhshani T, Harsini PA, Layeghiasi M. Effect of educational program based on theory of planned behavior on promoting nutritional behaviors preventing Anemia in a sample of Iranian pregnant women. BMC Public Health. 2021;21(1):1-9. Reading guiding questions	COM-B model due: Feb 16 at 23:59pm
Winter break					
7	Tues. Feb 28	Social cognitive theory	In-person	Stacey FG, James EL, Chapman K, Lubans DR. Social cognitive theory mediators of physical activity in a lifestyle program for cancer survivors and carers: findings from the ENRICH randomized controlled trial. International Journal of Behavioral Nutrition and Physical Activity. 2016;13(1):1-13. Reading guiding questions	
	Thurs. Mar 2	Transtheoretical model	In-person	Gur K, Erol S, Kadioglu H, Ergun A, Boluktas R. The impact on adolescents of a Transtheoretical Model-based programme on fruit and vegetable consumption. Public Health Nutrition. 2019;22(13):2500-2508. Reading guiding questions	
8	Tues. Mar 7	Socio-ecological model	In-person	Trude AC, Surkan PJ, Cheskin LJ, Gittelsohn J. A multilevel, multicomponent childhood obesity prevention group-randomized controlled trial improves healthier food purchasing and reduces sweet-snack consumption among low-income African-American youth. Nutrition Journal. 2018;17(1):1-5. Reading guiding questions	Quiz 3 (week 6 – 7 materials): in class

Week	Date	Topics	Format	Assigned Readings & Guest Speakers	Notes & Due Dates
	Thurs. Mar 9	Intervention mapping and evaluation	In-person	<p>Fernandez ME, Ruiter RA, Markham CM, Kok G. Intervention mapping: theory-and evidence-based health promotion program planning: perspective and examples. <i>Frontiers in Public Health</i>. 2019;14;7:209.</p> <p>https://www.cdc.gov/std/program/pupestd/types%20of%20evaluation.pdf</p> <p>Prestwich A, Webb TL, Conner M. Using theory to develop and test interventions to promote changes in health behaviour: evidence, issues, and recommendations. <i>Current Opinion in Psychology</i>. 2015;5:1-5.</p>	Intro & Methods outline due: Mar 9 at 23:59pm
9	Tues. Mar 14	Knowledge mobilization	In-person	<p>Caroline Duvieusart-Déry, MA Knowledge Mobilization Coordinator, The Community Engaged Scholarship Institute</p>	

Week	Date	Topics	Format	Assigned Readings & Guest Speakers	Notes & Due Dates
	Thurs. Mar 16	Strong Hearts, Healthy Communities	In-person	<p>Seguin RA, Eldridge G, Graham ML, Folta SC, Nelson ME, Strogatz D. Strong Hearts, healthy communities: a rural community-based cardiovascular disease prevention program. BMC Public Health. 2015;(1):1-1.</p> <p>READ abstract only:</p> <p>Seguin RA, Paul L, Folta SC, Nelson ME, Strogatz D, Graham ML, Diffenderfer A, Eldridge G, Parry SA. Strong hearts, healthy communities: A community-based randomized trial for rural women. Obesity. 2018;26(5):845-53.</p> <p>Folta SC, Paul L, Nelson ME, Strogatz D, Graham M, Eldridge GD, Higgins M, Wing D, Seguin-Fowler RA. Changes in diet and physical activity resulting from the Strong Hearts, Healthy Communities randomized cardiovascular disease risk reduction multilevel intervention trial. International Journal of Behavioral Nutrition and Physical Activity. 2019;16(1):1-2.</p> <p>Lo BK, Graham ML, Folta SC, Strogatz D, Parry SA, Seguin-Fowler RA. Physical activity and healthy eating behavior changes among rural women: an exploratory mediation analysis of a randomized multilevel intervention trial. Translational Behavioral Medicine. 2021;11(10):1839-48.</p> <p>Lo BK, Graham ML, Eldridge G, Donoso MR, Folta SC, Strogatz D, Nelson ME, Paul LC, Parry SA, Seguin-Fowler RA. Ripple Effects of a Community-Based Randomized Trial for Rural Women: Strong Hearts, Healthy Communities. Obesity. 2020;28(7):1224-34.</p> <p>Wang H, Kenkel D, Graham ML, Paul LC, Folta SC, Nelson ME, Strogatz D, Seguin RA. Cost-effectiveness of a community-based cardiovascular disease prevention intervention in medically underserved rural areas. BMC Health Services Research. 2019;19(1):1-3.</p>	
10	Tues. Mar 21	Course wrap-up	In-person	Activities TBD	Quiz 4 (week 8 – 9 materials): in class

Week	Date	Topics	Format	Assigned Readings & Guest Speakers	Notes & Due Dates
	Thurs. Mar 23	Group work session – no class	n/a		
11	Tues. Mar 28	Student presentation 1	In-person	Student presenters	Presentation slides due: Mar 27 at 11:59pm Final project presentations evaluations: in class
	Thurs. Mar 30	Student presentation 2	In-person	Student presenters	Final project presentations evaluations: in class
12	Tues. Apr 4	Student presentation 3	In-person	Student presenters	Final project presentations evaluations: in class
	Thurs. Apr 6	Student presentation 4	In-person	Student presenters	Final project presentations evaluations: in class

Note: This is a tentative schedule; however, due to various unknown factors there may be changes. Any changes will be announced during class and an announcement will be posted on the CourseLink site.

8. ASSESSMENT DETAILS

Assessment	LOs Addressed	Due Date	% of Final
REB training	5	Feb 2	5
Quizzes (4 quizzes; 10% each)	1, 2, 3, 4, 5	Jan 31, Feb 14, Mar 7, Mar 21	40
Intervention design project			
• COM-B and Behaviour Change Wheel Table	2, 4	Feb 16	10
• Introduction & Methods outline	1, 2, 3, 4, 5	Mar 9	5
• Project presentation slides	3	Mar 27	5
• Group project peer evaluations	6	April 13	5
• Final project paper	1, 2, 3, 4, 5	April 13	25
• Final project presentation evaluations-in class	6	Mar 28 through Apr 6	5
Total:			100%

9. COURSE STATEMENTS

Land Acknowledgement:

We acknowledge that the University of Guelph resides on the ancestral lands of the Attawandaron people and the treaty lands and territory of the Mississaugas of the Credit. We recognize the significance of the Dish with One Spoon Covenant to this land and offer our respect to our Anishinaabe, Haudenosaunee and Métis neighbours as we strive to strengthen our relationships with them. Acknowledging them reminds us of our important connection to this land where we learn and work.

Course Website:

There is a course website at <http://courselink.uoguelph.ca>. All components of this course will be housed on the CourseLink site including this course outline, assignments, and links to further resources. Your assignments will be submitted through the Dropbox function. Marks and feedback will also be released on the site. Please familiarize yourself with this website as soon as possible and visit it regularly throughout the semester.

Late Assignments:

Late assignments will be accepted up to 5 days following the due date and will receive a penalty of 10% per day EXCEPT under documented grounds for compassionate consideration. Assignments submitted more than one week late without documented grounds will receive a grade of zero. If you are going to hand an assignment in late, you must contact your course instructor to inform them when you will be submitting your assignment.

Receipt of Grades:

After you receive a grade on CourseLink, please review your feedback. Any inquiry or dispute over the grade must be made within two weeks from the date they are posted. If you fail to protest any grade during this time limit, changes to the grade will not be considered. [Grades will be based on the Grading Procedures outlined in the Undergraduate Calendar.](#)

Turnitin Software:

In this course, your instructor will be using Turnitin, integrated with the CourseLink Dropbox tool, to detect possible plagiarism, unauthorized collaboration or copying as part of the ongoing efforts to maintain academic integrity at the University of Guelph.

All submitted assignments will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Usage Policy posted on the Turnitin.com site.

A major benefit of using Turnitin is that students will be able to educate and empower themselves in preventing academic misconduct. In this course, you may screen your own

assignments through Turnitin as many times as you wish before the due date. You will be able to see and print reports that show you exactly where you have properly and improperly referenced the outside sources and materials in your assignment.

10. UNIVERSITY STATEMENTS

E-mail communication:

As per university regulations, all students are required to check their <uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.

When you cannot meet a course requirement:

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. See the Undergraduate Calendar for information on regulations and procedures for [Academic Consideration](#).

Drop date:

Courses that are one semester long must be dropped by the end of the last day of classes; two-semester courses must be dropped by the last day of classes in the second semester. The regulations and procedures for [Dropping Courses](#) are available in the Undergraduate Calendar.

Copies of out-of-class assignments:

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

Accessibility:

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required, however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to make a booking at least 14 days in advance, and no later than November 1 (fall), March 1 (winter) or July 1 (summer). Similarly, new or changed accommodations for online quizzes, tests and exams must be approved at least a week ahead of time.

More information: www.uoguelph.ca/sas

Academic misconduct:

The [Academic Misconduct Policy](#) is outlined in the Undergraduate Calendar.

The University of Guelph is committed to upholding the highest standards of academic integrity and **it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct** and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

Instructors **shall not** determine if academic misconduct has occurred. This is up to the Associate Dean Academic's office. Instructors shall not assign a grade of zero even if they believe that the student has committed some form of academic misconduct (e.g., copied material from a website like CourseHero) on an assignment or exam.

Instructors **can** determine if a student has poorly paraphrased and/or improperly cited material and can provide a grade accordingly as long as this is clearly identified as part of the assessment criteria via a rubric or other assessment tools.

For more information about Academic Integrity resources and how to prevent Academic Misconduct see: <https://csahs.uoguelph.ca/faculty-research/hub-teaching-learning-excellence/academic-integrity>

Recording of materials:

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

Resources:

The [Academic Calendars](#) are the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs.

Disclaimer:

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings, changes in classroom protocols, and academic schedules. Any such changes will be announced via Courselink and/or class email.

This includes on-campus scheduling during the semester, mid-terms and final examination schedules. All University-wide decisions will be posted on the COVID-19 website (<https://news.uoguelph.ca/2019-novel-coronavirus-information/>) and circulated by email.

Illness:

Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g., final exam or major assignment).

COVID-19 Safety Protocols:

For information on current safety protocols, follow these links:

- <https://news.uoguelph.ca/return-to-campus/how-u-of-g-is-preparing-for-your-safe-return/>
- <https://news.uoguelph.ca/return-to-campus/spaces/#ClassroomSpaces>

Please note, that these guidelines may be updated as required in response to evolving University, Public Health or government directives.

Appendix:

For those students enrolled in the Area of Emphasis in Dietetics: The Integrated Competencies for Dietetic Education and Practice (2013; <http://www.pdep.ca/>):

Foundational Knowledge Specifications (FKS) that are met by this course:

Foundational Knowledge Specification	Complexity Level (1, 2, 3)	How FKS is met in this curriculum
3. Communication		
3c) Strategies for effective written communication	3	Assignment: Students will write a paper to develop a nutrition or a physical activity intervention to address a public health problem.
3d) Strategies for effective oral communication	3	Assignment: Students will present their behaviour change intervention project.
8. Human Nutrition Across the Lifespan		
8d) Physical activity and energy balance	3	Quiz: Test of knowledge gained in lectures. Assignment: Students will write a paper to develop a nutrition or a physical activity intervention to address a public health problem.
9. Interprofessional Collaboration		
9d) Team functioning	3	Assignment: Students will work in groups to develop a nutrition or a physical activity intervention.
12. Nutrition Assessment		
12b) Environmental and individual factors affecting food intake	3	Quiz: Test of knowledge gained in lectures. Assignment: Students will perform literature reviews to identify environmental and individual factors affecting food intake and physical activity to inform the development of their behaviour change intervention design project.
12f) Surveillance and monitoring data collection and interpretation	3	Quiz: Test of knowledge gained in lectures. Assignment: Students will identify various methods to capture nutrition and physical activity changes in their behaviour change intervention design project.

Foundational Knowledge Specification	Complexity Level (1, 2, 3)	How FKS is met in this curriculum
16. Professional Practice in Dietetics		
16c) Ethical conducts	3	Assignment: Students will complete an ethics training; students will outline how they obtain informed consent in the behaviour change intervention design project.
16f) Decision making	3	Assignment: Students will review scientific literature and seek instructor's input to inform their decisions on how to develop an intervention to address a public health problem.
16h) Role of research and new knowledge	3	Quiz: Test of knowledge gained in lectures. Assignment: Students will develop an intervention study to address a public health problem and discuss the potential impacts of the knowledge generated from this intervention.
17. Population and Public Health		
17a) Frameworks for population and public health	3	Quiz: Test of knowledge gained in lectures. Assignment: Students will apply a population behavior change model to develop an intervention.
17b) Strategies for public and population health including health promotion, education, advocacy, community development and partnerships	3	Quiz: Test of knowledge gained in lectures. Assignment: Students will outline the strategies that they plan to use in their intervention project to change a population's behaviour.
17e) Program planning in public and population health	3	Assignment: Students will plan and develop a community-based behaviour change intervention to address a public health problem.
17f) The determinants of health	3	Quiz: Test of knowledge gained in lectures. Assignment: Students will develop an intervention to address a public health

Foundational Knowledge Specification	Complexity Level (1, 2, 3)	How FKS is met in this curriculum
		problem with the consideration of the target population's socioeconomic factors.
18. Research and Evaluation		
18a) Theoretical foundations of research	3	Quiz: Test of knowledge gained in lectures. Assignment: Students will design a theory-informed intervention study to address a public health problem.
18b) Qualitative, quantitative, and mixed methodologies	3	Quiz: Test of knowledge gained in lectures. Assignment: Students will propose various methods to evaluate the effectiveness of the behaviour change intervention that they develop.
18c) Ethics in research	3	Assignment: Students will complete the REB training; students will need to demonstrate how they obtain informed consent in their intervention development project.
18d) Evidence-informed practice	3	Assignment: Students will review prior behaviour change interventions' strengths and limitations and develop an intervention to address prior interventions' limitations.
18e) Literature search strategies	3	Assignment: Students will perform literature reviews to inform the development of their intervention development project.
18f) Systematic review and critical appraisal of literature	3	Assignment: Students will review prior behaviour change interventions' strengths and limitations and develop an intervention to address prior interventions' limitations.
18g) Use of technology to seek and manage information	1	Guest lecture: Students will learn how to use the university library search system to locate relevant studies for their learning.
19. Social and Psychological Foundations		
19a) Behavioural theories relevant to eating and food choice	3	Quiz: Test of knowledge gained in lectures. Assignment: Students will apply a behaviour

Foundational Knowledge Specification	Complexity Level (1, 2, 3)	How FKS is met in this curriculum
		change framework to develop a behaviour change intervention.
19b) Social and psychological aspects of eating and food choice, in health and disease	3	<p>Quiz: Test of knowledge gained in lectures.</p> <p>Assignment: Students will develop a behaviour change intervention with the consideration of the target population's social and psychological factors.</p>

Performance Indicators (PI) that are met by this course:

Performance Indicator	How PI is met in this curriculum
1. Professional Practice	
1.06b Demonstrate knowledge of ethical principles for decision making.	<p>Students will complete an ethics training and submit an REB training certificate.</p> <p>Students will design a behaviour change intervention study where they will be asked to outline a plan to obtain informed consent.</p>
1.06c Demonstrate knowledge of approaches to obtain and interpret evidence to inform decision making	Students are asked to conduct literature searches/reviews and design an evidence-based behaviour change intervention study. Students are required to synthesize current evidence to inform their intervention approach.
1.06d Demonstrate knowledge of contextual factors that may influence decision making	Students are asked to consider social and psychological factors that may influence one's ability to change a behaviour when designing their behaviour change intervention study.
1.06e Obtain and interpret evidence	Students are asked to conduct literature searches and review current evidence to inform the development of their behaviour change intervention study assignment.
1.11b Demonstrate knowledge of sources of evidence to assess effectiveness of approaches to practice	Students are asked to select appropriate tools to measure the effectiveness of their proposed behaviour change intervention study.
1.13a Demonstrate knowledge of research and evaluation principles	Students will learn about various intervention study designs and different evaluation approaches in class

Performance Indicator	How PI is met in this curriculum
	and use that knowledge to design a behaviour change intervention study.
2. Communication and Collaboration	
2.02c Edit with material for style, spelling, and grammar	Students will submit written assignments.
2.02e Write in an organized and logical fashion	Students will submit written assignments.
2.02f Provide accurate and relevant information in written material	Students are asked to provide citations to support their claims and decisions in their written assignments.
2.02g Ensure that written material facilitates communication	Students are asked to write effectively and in a logical manner for their written assignments.
2.03a Demonstrate knowledge of elements of effective oral communication	Students are asked to present their behaviour change intervention study in class.
2.03b Speak clearly and concisely, in a manner responsive to the needs of the listener(s)	
2.03c Demonstrate knowledge of the impact of tone of voice and body language on the communication process	
2.03d Use appropriate tone of voice and body language	
2.03e Recognize and respond appropriately to non-verbal communication	
2.05a Recognize opportunities to contribute to the learning of others	Students will provide constructive feedback to their peers' behaviour change intervention study presentations.
2.06e Identify ways to draw upon the expertise of others	Students are given examples of resources on campus to facilitate their learning.
2.06f Draw upon the expertise of others	Students will work in groups to draw upon their peers' expertise to complete various tasks for their behaviour change intervention study project.
2.06g Contribute to shared decision making	Students will work in groups to contribute their group's decisions on group work.
2.06h Demonstrate knowledge of principals of teamwork and collaboration	Student will collaborate with their peers for group assignments.
2.06i Facilitate interactions and discussions among team members	Students will take the initiative to facilitate interactions and discussions among team members for group assignments.

Performance Indicator	How PI is met in this curriculum
3. Nutrition Care	
3.02c Demonstrate knowledge of ways to identify and select appropriate nutrition interventions	Students will design a behaviour change intervention study based on their literature reviews and knowledge synthesis.
3.03a Identify ways to implement nutrition interventions	Students will plan and design the implementation of a behaviour change intervention for their final project.
4. Population and Public Health	
4.01a Demonstrate knowledge of types and sources of information to assess food and nutrition-related issues of groups, communities, and populations	Students will identify and critically appraise literature to inform the development, implementation and evaluation of a theory-informed and evidence-based behaviour change intervention to address a public health problem.
4.01c Demonstrate knowledge of ways to determine key stakeholders and obtain relevant information	
4.01e Demonstrate knowledge of sources of and methods to obtain food and nutrition surveillance, monitoring, and intake data.	
4.01g Demonstrate knowledge of sources of and methods to obtain health status data	
4.01i Demonstrate knowledge of sources of and methods to obtain information relating to the determinants of health	
4.02a Demonstrate knowledge of ways to establish appropriate goals and objectives for population health related to food and nutrition	
4.02c Demonstrate knowledge of principles to establish strategies and action plans to meet population health goals and objectives	
4.02f Demonstrate knowledge of common monitoring approaches related to population health	
4.03a Demonstrate knowledge of ways to coordinate and deliver population health activities	
4.04a Demonstrate knowledge of common processes and outcomes used to evaluate the effectiveness of population health activities	
5. Management	

Performance Indicator	How PI is met in this curriculum
5.01s Demonstrate knowledge of principles to evaluate effectiveness in achieving goals and objectives	Students will identify and critically appraise literature to inform the development, implementation and evaluation of a theory-informed and evidence-based behaviour change intervention to address a public health problem.
5.02a Demonstrate knowledge of ways to define common goals and objectives for programs and projects	
5.02d Demonstrate knowledge of typical components of an action plan for a program or project	