

ACKNOWLEDGEMENT

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the xwməθkwəyəm (Musqueam) people. The land it is situated on has always been a place of learning for the Musqueam people, who for millennia have passed on their culture, history, and traditions from one generation to the next on this site.

COURSE INFORMATION

Course Title	Course Code Number	Credit Value
Principles and Practices of Injury Prevention	SPPH 555 (941)	3 credits

PREREQUISITES

None

COREQUISITES

None

CONTACTS

Course Instructor(s)	Contact Details	Office Location	Office Hours
Dr. Mariana Brussoni	mbrussoni@bcchr.ubc.ca	BC Children's Hospital Research Institute F511, 4480 Oak Street	By appointment
Dr. Ian Pike	ipike@bcchr.ca	F508, 4480 Oak Street	By appointment
Dr. Shelina Babul	sbabul@bcchr.ca	F508, 4480 Oak Street	By appointment

COURSE INSTRUCTOR BIOGRAPHICAL STATEMENT

Dr. Mariana Brussoni earned a PhD in Developmental Psychology from UBC. She then worked as Associate Director of the BC Injury Research and Prevention Unit. After several rewarding years, Mariana undertook postdoctoral work in child development and injury prevention at Birkbeck College, University of London, and the University of the West of England. She returned to UBC as a faculty member in the Department of Pediatrics, cross-appointed to SPPH. Her research focuses on child injury prevention, children's outdoor risky play, adult risk perceptions and child-friendly design. Her love of the outdoors along with the realities of parenting two children resulted in a paradigm shift in her research from focusing on keeping children as safe as possible, to as safe as necessary – making space for risk taking in play. Mariana's work spans the knowledge construction to mobilization cycle. She is on the leadership team of [Outdoor Play Canada](#) and a board member of the [Child & Nature Alliance of Canada](#). More information on her research program can be found at <https://brussonilab.ca>

Dr. Ian Pike is the Director of the [BC Injury Research and Prevention Unit](#), Professor in the Department of Pediatrics at UBC, Associate Scientist at the BC Children's Hospital Research Institute, and Co-executive Director and Spokesperson for The Community Against [Preventable](#) Injuries – an injury prevention social marketing organization. His academic training is in kinesiology, health promotion and injury prevention, with particular emphasis on population health and the workplace.

He has some 30 years experience in injury prevention and healthy lifestyle promotion, and has worked in the private, not-for-profit, and academic sectors. For his leadership and work in developing a province-wide health promotion and injury prevention program for the health care sector, Dr. Pike was recognized with an international award of excellence by the Association for Worksite Health Promotion.

Dr. Shelina Babul focuses primarily on sport and recreation evidence-based research and knowledge implementation, with a specialization in concussions/traumatic brain injuries and their prevention, recognition, treatment, and management. She is the Director of BC Children's Hospital Canadian Hospitals Injury Reporting and Prevention Program (BC CHIRPP) and an Investigator with both BC Children's Hospital and the Djavad Mowafaghian Centre for Brain Health at UBC. Dr. Babul chairs the BC Concussion Advisory Network (BC CAN) and is a member of several provincial and national concussion advisory committees, including [Parachute's](#) National Concussion Subcommittee and the Canadian Traumatic Brain Injury Research Consortium. She received the 2016 BC Hockey Safety Award and the 2014 Prevention and Awareness Award from the Brain Injury Association of Canada.

COURSE STRUCTURE

Year/Term: Summer 2021, Term 1

Course Schedule:

Location: <https://canvas.ubc.ca/>

Course Description: SPPH 555 is based on the Canadian Injury Prevention Curriculum (CIPC), a curriculum focused solely on injury prevention and control theory and practice (<http://www.cccip.ca/introduction/>). We build on this curriculum with deeper dives into material, guest lectures, class discussions, and assignments. Upon receiving a passing grade in the course, students will receive a Certificate of Completion from the Canadian Collaborating Centres for Injury Prevention (CCCIP).

Course Structure: SPPH 555 will be delivered entirely online with synchronous and asynchronous material. We strongly believe that students have as much to learn from each other as from the instructors and the course is designed to support diverse ways of learning, the exchange of ideas, and building on those ideas through collaboration. Four pre-recorded lessons offer the foundation of learning material. These will be supplemented by additional independent readings/videos. Online synchronous class time will be dedicated to lectures with interactive components to facilitate discussion and learning of materials. Class discussion is a critical component of the course and you will be expected and encouraged to share your ideas and opinions. Regular attendance is expected.

Injury prevention is a very broad concept and covers a very wide spectrum of specific topics, issues, and subpopulations (i.e. fall-related injuries, injuries to children, seniors, or workers, poisonings, violence, suicide, car crashes, etc) – it is therefore not possible to cover all “content areas” during a single course. The course assignments, however, will give students the opportunity to study a more specific injury issue of their choice (further details below).

SCHEDULE OF TOPICS

Any changes to the schedule will be announced on Canvas. Please be sure you are receiving Canvas announcements for this course.

Schedule	Topic	Online Material & Assignments	Readings Required Readings in Black Recommended Readings in Orange
Part 1: Introduction to Injury Prevention			
May 10	Introduction and course planning	Lesson 1: Introduction to Injury Prevention Using the Public Health Approach (Pre-recorded)	Textbook: Pike, I., Richmond, S., Rothman, L., & Macpherson, A. (Eds.). (2015). Canadian Injury Prevention Resource . Toronto, ON: Parachute. <ul style="list-style-type: none"> Section 1: Introduction (Including 1.1 through 1.3)
May 12	Injury prevention in BC, development of injury priorities	Assignment 1 – Personal reflection on injuries in your life due May 12	Textbook: <ul style="list-style-type: none"> Section 2: Canadian Evidence-Informed Practice Model 2.1: The Public Health Approach 2.2: The Injury Prevention Spectrum and the 3E's
May 14	Injury surveillance		Textbook: <ul style="list-style-type: none"> 2.3.1 Surveillance: Defining the Problem
May 17	Injury prevention with Indigenous communities	Lesson 2: Risk and Protective Factors: Understanding the Key Determinants for Injury (Pre-recorded)	Textbook: <ul style="list-style-type: none"> 2.3.2 Identifying Risk and Protective Factors Section 3 Key Determinants of Injury (along with any subsections that are of interest) 3.10.2 Aboriginal Peoples
May 19	Intentional injury		Textbook: <ul style="list-style-type: none"> 4.5 Suicide/Self-Harm 4.6 Violence
May 21	Fall prevention	Lesson 3: Selecting an Intervention (pre-recorded) Assignment 2 – Injury Prevention Journal Article Critique due	Textbook: <ul style="list-style-type: none"> 2.3.3 Selecting or Designing an Intervention 2.3.4 Program and Policy Implementation
Part 2: Intervention Planning			
May 24	No Class – Victoria Day		
May 26	Social marketing injury prevention: Preventable	Assignment 3 - Haddon's Matrix due	Textbook: <ul style="list-style-type: none"> 2.4 Political and Social Context 2.5 Engagement
May 28	Concussions	Lesson 4: Implementation and Evaluation (pre-recorded)	Textbook: <ul style="list-style-type: none"> 4.8 Concussion

May 31	Group work, Assignment 4	Assignment 4 – DRAFT logic model due May 30	Textbook: <ul style="list-style-type: none"> 2.3.5 Evaluation and Monitoring <p>Public Health Ontario. (2016) Focus on: Logic model – a planning and evaluation tool.</p> <p>https://www.publichealthontario.ca/-/media/documents/F/2016/focus-on-logic-model.pdf?la=en</p>
June 2	Strategy selection and behaviour change techniques		<ul style="list-style-type: none"> 3.2.1 Risk Perception and Risk Mitigation 3.5.5 Outdoor Play Environments
June 4	Sport & Recreation injury prevention	Assignment 4: Final logic model due	Textbook: 4.11 Sports and Recreation
June 7	Intimate partner violence		
June 9	Traffic safety	Assignment 5: Intervention planning: Choose your strategy due	Textbook: <ul style="list-style-type: none"> 3.5 Physical and Built Environments – Introduction 3.5.3 Street Design 4.2 Transport Injuries
June 11	Student presentations		
June 14	Student presentations		
June 16	Student presentations & Course wrap-up	Final paper due	

LEARNING OUTCOMES

1. Gain knowledge of the magnitude of major injury causes, types and other classifications of injury.
2. Describe the social, economic, behavioral and environmental contexts in which injuries occur.
3. Become familiar with the strengths and limitations of research methods and data sources available for investigating and monitoring injuries.
4. Understand the roles of public health, medicine, engineering, education, regulation, and economics in the prevention and treatment of injuries.
5. Assess the effectiveness of public health approaches in the prevention of injuries.
6. Develop an injury prevention initiative and implementation and evaluation planning.

7. Gain practical experience addressing a specific injury issue using the tools and concepts introduced in class.
8. Apply a critical perspective to injury prevention theory and practice.

LEARNING MATERIALS

Required readings will supplement both the classroom and on-line material. It is expected that students will have read all the required readings for each module at the appropriate times.

The required text is available online without charge:

Pike I, Richmond S, Rothman L, Macpherson A (eds.) (2015). *Canadian Injury Prevention Resource: An evidence-informed guide to injury prevention in Canada*. Parachute, publisher: Toronto, ON.

<http://www.parachutecanada.org/cipr>

The course's online learning platform is UBC Canvas. The student's guide to Canvas can be accessed here: <https://students.canvas.ubc.ca/>

ASSESSMENTS OF LEARNING

Students will be evaluated through a combination of class participation, group exercises and assignments. In order to develop a comprehensive understanding of the concepts and issues raised in this course, five assignments have been developed based on the content from each learning module. These assignments will be discussed with classmates and instructors openly in class and via the UBC Canvas online discussion board.

- Assignments 1-3 worth 5% each (15% total)
- Assignments 4-5 worth 10% each (20% total)
- Final Project: Paper worth 30%
- Final Project: Presentation worth 25%
- Class Participation, in-class and on-line worth 10%

If you expect assignments will be late, please discuss with the instructors in advance. Assignments submitted late without a valid excuse will be docked 1% per day they are late.

ASSIGNMENTS

Each assignment builds on work completed in previous assignments. We recommend selecting one injury topic and using that same topic across all assignments, the final presentation and paper.

Written assignments should be **1-2 pages** in length and can be in full paragraph or point form. ***Students will post their assignments on the Canvas SPPH 555 platform in the Discussion module. Each assignment has its own discussion thread. For each assignment, students are required to comment on at least one other student's assignments, and respond to other students' posts to***

their item. Please ensure comments are respectful and supportive, while providing constructive critique.

Assignment 1: Personal reflection on influence of injuries in your life

Consider why injury is important to you or how injury has impacted you. It could be to reflect on your interest in taking this course or thinking through a personal injury experience, the experience of someone you know, or something in your community. Using photos or videos, you will be sharing your story about this injury issue. For example, take at least two photographs that reflect your injury interest and provide a short narrative description for what the photograph reflects for you. You could also develop a video (2 minutes maximum) or a podcast that reflects this story. Creativity is encouraged. The injury issue identified in this assignment can inform the injury case scenario you'll be developing in future assignments.

Assignment 2: Injury prevention journal article critique

A research critique involves a formal analysis and evaluation of a journal article based on a set of known criteria. It involves questioning the information and opinions available in the text while evaluating both the strengths and weaknesses of the study. Critical appraisal is an important part of evidence-based practice, which uses the best available evidence and applies it to clinical decision-making. The ability to objectively critique research is an essential skill in order for health care professionals to use research evidence reliably and effectively.

For this assignment, you are to act like you are a reviewer for a journal and you have been asked to critique a scientific article prior to its publication. Select **one** injury-related academic article and review its scientific and practical merit. We recommend you select an article on the injury topic that will be your focus for the remaining assignments.

A successful submission will clearly evaluate the validity, limitations, strengths and relevance of the study. Your critique should relate to the different themes, frameworks and approaches to injury prevention that are discussed in the course. Assignments should include the following components: introduction, summary of the key points of the study, critique of the article and conclusion.

Additional resource:

Greenlagh, T. (2010). How to read a paper: The basics of evidence-based medicine. Oxford: Wiley & Sons.

Publons (2020). How to write a peer review. <https://publons.com/blog/how-to-write-a-peer-review-practical-templates-expert-examples-and-free-training-courses/>

Assignment 3: Haddon's Matrix

Haddon's Matrix tool can help increase our understanding of the multiple factors that are present during the event of an injury. For this assignment:

1. Develop an injury case scenario (we recommend this be based on your injury interest explored in Assignments 1 and 2) and apply the Haddon Matrix tool to it. Think broadly and push the envelope in terms of all of the factors that might influence the event. Of the factors you list, identify (use highlight tool on Word or some other method of identifying them) which are:
 - Most amenable to change
 - Would have the greatest impact on the injury problem if changedBy identifying which are amenable to change, and would have the greatest impact, it will help identify possible types of interventions.
2. Using the factors that you choose as amenable to change from the Haddon's Matrix, develop an intervention (very brief description) for each of Haddon's 10 countermeasures (refer to Haddon's 10 Countermeasures handout) for the scenario. Consider who your target group is for the intervention you will be creating.
3. Identify one possible intervention that fits into each of the following types of strategies:
 - a. Education
 - b. Engineering
 - c. Enforcement
 - d. Economic
4. Think about each intervention in terms of the following factors as a guide, and select the intervention that is, on balance, the most appropriate to carry out.
 - a. Effectiveness of intervention
 - b. Affordability/cost
 - c. Resources
 - d. Sustainability and acceptability
 - e. Unintended outcomes/consequences
 - f. Partnership and community support/interest
 - g. Other

When you respond to other students' assignments/posts, consider what is the most creative injury prevention strategy that you feel has emerged from this exercise and your vote for the most appropriate intervention choice that they have suggested.

Assignment 4: Injury Prevention Intervention & Logic model

For this assignment, select one intervention from the ones you outlined in Assignment 3. You will now be fleshing out this injury prevention intervention and developing a logic model.

A successful submission will clearly express the intervention's goal, activities, audience, time frame, resources, outputs and outcomes (objectives). Moreover, it will consider the situational context, assumptions, external factors, and strategies. Please express your implementation plan as a logic model with a short written summary. Your audience includes members of the community as well as health and policy experts.

We recommend you use the Public Health Ontario logic model planning and evaluation tool (reference provided below), working through the worksheets in steps 2-6 to develop your logic model. Note that there will be elements of the worksheets that are too detailed for your purposes, but they provide some useful guiding questions to work toward the logic model. The draft logic model template is found in Worksheet 6.2.

Your *draft* logic model is due May 30. At our May 31 meeting, you will have time to present your draft logic model to your peers and receive constructive feedback. You will use this feedback to finalize the assignment for final submission on June 4th.

Resources:

Public Health Ontario. (2016) Focus on: Logic model – a planning and evaluation tool.

<https://www.publichealthontario.ca/-/media/documents/F/2016/focus-on-logic-model.pdf?la=en>

Ontario Centre for Excellence for Child & Youth Mental Health. Program Evaluation Toolkit, page 9: Developing the Program Logic Model <http://www.excellenceforchildandyouth.ca/resource-hub/program-evaluation-toolkit-tools-planning-doing-and-using-evaluation>

Assignment 5: Intervention planning: Choose your strategy

Building on your logic model, you will dig deeper into the strategies and activities that address the goals and objectives you identified in the logic model. You will have decided the audience and the level you are targeting (individuals, community, environment, public policy). For this assignment, you will select the health promotion or behaviour change model that your intervention will be grounded in and the strategies or techniques you will use to address elements of the model.

Resources:

Textbook: Section 3.2.1 Risk Perception and Risk Mitigation. This chapter includes description of different health promotion and behaviour change models used in injury prevention.

Kok et al., (2016) A taxonomy of behaviour change methods: An intervention mapping approach, *Health Psychology Review*, 10(3), 297-312.

<https://www.tandfonline.com/doi/full/10.1080/17437199.2015.1077155>

In particular, please look at the Supplemental Material as it has tables that may help you select techniques based on what you want to target:

https://www.tandfonline.com/doi/suppl/10.1080/17437199.2015.1077155/suppl_file/rhpr_a_1077155_sm9693.pdf

Bartholomew et al. (2016). *Planning health promotion programs: An intervention mapping approach*, 4th Edition. Jossey-Bass: San Francisco.

Brussoni et al. (2018) Go Play Outside! Effects of a risk-reframing tool on mothers' tolerance for, and parenting practices associated with, children's risky play: study protocol for a randomized controlled

trial. *Trials*, 19, 173. In particular, Table 1 shows an example of how behaviour change social cognitive theory was operationalized through behaviour change techniques:

<https://trialsjournal.biomedcentral.com/articles/10.1186/s13063-018-2552-4>

FINAL PAPER

Purpose

To provide an opportunity to apply concepts learned in class to a real-world situation.

Using the injury topic you have been exploring through the assignments, write either a journal article OR a policy brief on that topic. **Maximum length of the paper is 3,000 words, excluding abstract/executive summary and references. Please contact Dr. Brussoni to review your project idea prior to beginning this work, to ensure that it meets the needs of this course.**

Journal article manuscript: Considering the injury topic you've been exploring through the assignment, develop a manuscript that describes your research project or proposed project using the author submission guidelines for the journal [Injury Prevention](#).

Published examples of previous student work:

Lindsay, H., & Brussoni, M. (2014). Injuries and helmet use related to non-motorized wheeled activities in pediatric patients. *Chronic Diseases and Injuries in Canada*, 34, 74-81. http://www.phac-aspc.gc.ca/publicat/cdic-mcbc/34-2-3/assets/pdf/CDIC_MCC_Vol34_2-3_02_Lindsay-eng.pdf

Pan, S. W., Hsu, C., Brussoni, M., & Pike, I. (2015). Indigenous ethnicity as a social determinant of exposure to riskier modes of transport: A survey study in Taiwan. *Journal of Transport and Health*, 2(4), 595-601. <https://www.sciencedirect.com/science/article/pii/S2214140515006830>

Policy Brief: A policy brief is a medium for exploring an issue and distilling lessons learned from the research. It is a vehicle for providing the rationale for a particular policy. The brief should be a stand-alone document focusing on advocating for a single policy or service. You should select an audience for their brief, such as policy makers, practitioners, media, etc. and tailor the message to their audience. A sample brief outline includes:

- Executive summary (maximum length = 1 page)
 - Distill the essence of the brief (Describe the problem, outline why current approaches aren't working, prescribe a new action)
 - Provide an overview for busy readers
 - Entice readers to go further
- Context and Importance of the Problem: This should convince the reader that the problem is urgent and requires action
 - Clearly state the problem
 - Provide overview of root causes
 - Describe policy implications of the problem
- Critique of policy option(s)

- Detail shortcomings of the current approach (or lack thereof) to show the need for change
- Outline policy options
- Describe why the current approach doesn't work.
- Policy recommendations:
 - Describe policy approach
 - Rationalize your recommendation with evidence
- Policy actions:
 - Suggest concrete actions to address the issue
 - Breakdown the specific practical steps/measures needed to implement and by whom.
 - Make sure to include information on jurisdiction, potential cost, evaluation metrics, sustainability and feasibility
 - Consider potential unintended outcomes of the policy and how to mitigate them
 - Consider potential challenges/barriers and solutions

Final Presentation

Using the injury prevention topic you have been exploring in assignments and for the final paper, you are expected to present why you chose your topic, what you did, how you progressed and your results. Presentations should be in PechaKucha format, 20 slides x 20 seconds (6 minutes 40 seconds total) with primarily image-based (rather than text-based) slides. For more information, visit <https://www.pechakucha.com/>. Presentations will be followed by a question period and opportunity to receive constructive critique on the project and presentation.

Presentation Resources:

- TED Talk: Simon Sinek "How great leaders inspire action"
http://www.ted.com/talks/simon_sinek_how_great_leaders_inspire_action?language=en

UNIVERSITY POLICIES

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions.

Details of the policies and how to access support are available on [the UBC Senate website](#).

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