SPPH 581 "Special Topics" Course Syllabus

Intervening in Global Public Health, Sustainability,

and Preventive Medicine

Professor Erica Frank: 9-12/2023

Short Course name: Global Health/SDGs

Long course name: Intervening in Global Public Health, Sustainability, and Preventive Medicine

Offered: Fall/Winter 1 Term – September-December 2023

Day/Time: Thursday afternoons, 2-5 pm

Medium: Face-to-face Hybrid – part in-person part online – details to be determined (and will be evaluated)

Big idea of the course: learning/practicing how to improve public health globally

Course Summary

This course will provide a skills/practice-oriented experience, like many courses for health professionals, a case-/problem-based learning approach using real cases/problems on which you choose to intervene. It will give you a chance to safely practice solving real problems, collaboratively intervening in small teams of your construction to improve global public health, sustainability, and preventive medicine outcomes, framed didactically through the problem-solving lens of the [United Nations' Sustainable Development Goals](#).

Essential questions that will be addressed in this course are:

- How can students intervene in global public health, sustainability, and preventive medicine outcomes with maximally *Efficient Beneficence*?

- How can the [United Nations' Sustainable Development Goals](#) (*SDG*s) be a useful, action-oriented *lens* for identifying and addressing key issues in global public health, sustainability, and preventive medicine?

- What didactic knowledge and skills-based *competencies* should students acquire to best understand and address the SDGs?

Course learning objectives

By the end of this course, students should be able to effectively:

- explain the SDGs

- identify multiple SDGs that compel them to effective action in public health, and that they have knowledge and skills to address

- create strategies and initiatives to address those SDGs

- implement those strategies and initiatives

- evaluate the outcomes of their efforts and

- present the outcomes of their efforts in various formats and media.

This is a closely-guided, project-based course: a powerful andragogical (adult teaching) simulation technique for safely and efficiently developing competent professionals. The course is light on assigned reading and heavy on collaborative capacity-building to equip learners for real work in public health; examples are provided below. Learners will integrate acquired knowledge and skills-based competencies by helping lead and evaluate interventions, and by discussing and participating in classmates' interventions (see below, under "Instructions regarding interventions" for more). To competently address the theory and existing knowledge that should deeply inform your intervention, there will be abundant, personalized reading, but assigned/collective weekly reading beyond that is intentionally minimal (usually <1,000 words per week), to allow for time invested in other media/strategies for learning. The main sources for collective reading will be these brief descriptions of the SDGs and the also-brief 2022 Report on the progress on the SDGs. With this project you will practice identifying, creating, implementing, evaluating, and reporting on SDG-related interventions that we co-create for each student and for teams of students. We will use Canvas and other UBC sites as our primary teaching platforms.

When we are on UBC's campus, this course will be taught on the traditional and unceded ancestral lands of the Musqueam people. When we participate remotely, we'll also acknowledge the lands from which we are participating.

Synchronous Learning Times and Distant Face-to-Face

We are scheduled for Thursdays from 2-5pm for Winter Semester 1, September-December 2023. Some of these synchronous, face-to-face classes will be held in-person at UBC, and some remotely, as a hybrid format has been

demonstrated in a similar recent UBC SPPH course of Dr. Frank's (and in many other venues) to be: (1) preferred by students; (2) of higher quality; (3) consistent with UBC's policy to reduce travel-related carbon emissions; (4) especially useful for those working in global health. Students who have a particular reason (e.g., immunocompromise, other disability, an inflexibly in-person obligation that is distant from campus) to attend additional classes remotely are encouraged to send Dr. Frank a brief explanatory note to arrange that, or to seek other/formal accommodations; we welcome such students, and look forward to working to actively accommodating you.

Teaching Team

Professor Erica Frank, MD, MPH, FACPM; reachable at erica.frank@ubc.ca and efrank3g@gmail.com. This is my Wiki page, and this is a brief *UBCMJ* introduction to what motivates me around intervening in Global Public Health, Sustainability, and Preventive Medicine to address the SDGs, and why I've spent most of my career doing so.

Kieran Forde will be the co-instructor for the course; here's more on this educational expert https://alivelab.ca/profiles/kieran-forde/

Class structure

Class sessions will all have *3 components*: 1. acquiring SDG knowledge/skills (1-3 students guide the whole class through activities around 1-2 SDGs and then groups of 2-4 students discuss each SDG), 2. discussing related knowledge/skills collectively (whole class discusses each project), and 3. laboratory practicing skills (break into project teams). Time proportions for the 3 sections will vary based on the stage in the semester and weekly needs:

1. *Acquiring Knowledge/Skills* -- the knowledge component is learning about the SDGs (and their action-orientation), and the skills part is actively integrating the related skills (both project implementation and presenting/teaching) into your public health work. With Dr. Frank's guidance, a preselected 1-3 students will lead us for about 20 highly interactive minutes through explorations (not lectures) about some concepts from the week's SDG(s). Then we'll have <=45 minutes (depending on how many SDGs are presented that day) of small group (2-4 person, different groups each week) discussions on "what you thought was the most useful/surprising/interesting fact and most useful/surprising/interesting concept from this week's readings", "how does your personal intervention for the class tie into this/ese SDGs", and of strategizing on how to amplify/strengthen your project to maximally address this week's SDGs while not compromising other goals (the real world exercise we constantly do as PH practitioners). Students are expected to actively prepare for and participate in (per

the grading rubric below) both the guided explorations and the small group discussions, so we can spend class time not on knowledge transfer, but on deeply examining and understanding applications of each SDG to improve health globally.

2. *Discussing Related Knowledge and Skills Collectively* about your/others' interventions – short format research roundtable. Each person (clustered by intervention groups) has a few minutes to present on their intervention's progress, provide questions they'd like help on, and get feedback. Per the grading rubric described in the Evalution section below, students are expected to actively participate in this section, so that they are involved in and learn from interventions beyond their own.

3. *Lab / Practicing Skills in Small Groups* – "laboratory"/workshop time for interventions. Learners break into project teams, discuss projects in more depth, collaborate with professors and teammates.

Class/Week #

1. Class 1 -- September 7 — Before Class 1, please read [this 2 page article](#) about the SDGs and the Social Determinants of Health, and have begun looking at [the descriptions of the SDGs](#) and the [2022 Report on the progress on the SDGs](#), our framing "textbooks" for the class. In class, we will introduce you to the meta-concepts in the course, along with reviewing our goals for and structure of the course. We'll also begin our introductions to each other, and will initiate how the rest of the class sessions will proceed. This will include our breaking into small groups to discuss the readings (section 1 of each class), and a full-group discussion of people's preliminary ideas of what kinds of interventions might interest them (section 2 of each class), including some options from Dr. Frank. We will share a (20 minutes of walking/talking) field trip/gap analysis/needs assessment, starting at the corner of Thunderbird Boulevard and Eagles Drive.

2. Class 2 -- September 14 – We will be presenting/discussing your ideas about what semester-long achievable interventions interest you to co-lead, and listening to see if and how you might want to contribute to others' interventions as part of a team. We'll also have a potluck for the last part of class, where we talk about an SDG-related aspect of whatever food we brought. Completion of [TCPS-2 core module](#) due September 17, as are your 100-200 word description of the project you want to work on, and a signup for you (and any other students working on your same project) with Dr. Frank outside of class for an in-person or videoconferenced appointment to discuss your proposed initiative.

3. Class 3 -- September 21 — Regular 3 part class from here on. Environmental scan of existing knowledge of topic due September 24.

4. Class 4 -- September 28 — First draft of intervention description due October 1, along with an in-person or videoconferenced signup for you/your team with Dr. Frank for a second discussion of and feedback on your initiative.

5. Class 5 -- October 5 — Revised intervention description due October 8, with team learning/outcome/community agreements completed, and with individual times, learning outcomes, and evaluative criteria delineated on timeline.

6. Class 6 -- October 12 — No synchronous class this week, as it's pseudo Monday @ UBC.

7. Class 7 -- October 19 — Learning outcomes due per individual timelines.

8. Class 8 -- October 26 — Learning outcomes due per individual timelines.

9. Class 9 -- November 2 — Midterm with multiple choice questions on first half of SDGs. Learning outcomes due per individual timelines, last in-person class.

10. Class 10 -- November 9 — Learning outcomes due per individual timelines.

11. Class 11 -- November 16 — Reviews of questions about didactics/principles/skills, learning outcomes due per individual timelines.

12. Class 12 – November 23 — Final presentations of class interventions, reviews of questions about didactics/principles/skills, learning outcomes due per individual timelines.

13. Class 13 – November 30 — Final presentations of class interventions, reviews of questions about didactics/principles/skills, learning outcomes due per individual timelines.

14. Class 14 – December 7 — Final exam (second half of SDGs, narrative essay), learning outcomes due per individual timelines.

15. Additional final materials turned in per individual timelines.

<u>Evaluation</u>

Your metrics for this class should reflect all the varied competencies that we are trying to promote. Therefore, the assessment for this class is a mix of: 1. Weekly class participation (13%); 2. Organization of class activities re SDGs (5%); 3. Intervention (50%); 4. Class presentation about intervention (5%); 5. Final exam (27%). So we can all keep up, late assignments will be penalized 5% of the possible grade for each calendar day it's past due.

1. *Weekly class participation (13%):* Students are expected to actively participate in each week's class, and to write a few sentences on a [shared spreadsheet](#) about how the week's SDG(s) influence their interventions. The weekly participation assessment rubric is:

> 1 full point: Learner actively participates in discussions orally or in chat, is prepared and knowledgeable about the readings, respectfully listens to and communicates with others, asks helpful questions and helps direct the group in solving problems and addressing interventions, makes meaningful written comments on the shared spreadsheet.
>
> 0.5 points: Learner attends but participates minimally
>
> 0 points: Does not attend, or does not participate, or participates disruptively.

2. *Organization of class activities re SDGs (5%):* You'll prepare before class to lead us through explorations (guided discussion and action, not lectures, please) about some meta-principles from the week's SDG(s). The purpose is to practice teaching with and learning from varied engaging modalities, to learn about and integrate the SDGs into your work, and to help everyone see how the problem-solving orientation of the SDGs can help guide the interventions that we are addressing. Presenters can use multimedia, have us do an activity, break into small discussion groups, bring in guest interactors, or engage students in other compelling fashions, etc – but please, very little lecturing/powerpoints if used at all, and try to go beyond interacting with electronic media (clickers/voting), especially in our in-person classes.

3. *Intervention/project:* These interventions/projects focus on creating, implementing, evaluating and documenting the effects of strategies to address the SDGs (50%), examples of which are described further below. Specific evaluative metrics will be co-developed by students and professors for each person and project by Class 5, and will have due dates distributed throughout the semester, per the example below. With Dr. Frank's close guidance, students will co-develop an evaluative rubric, using various rubric/evaluative strategies as a framework, possibly including [this MIT reference](#). Students will be encouraged

to create metrics that allow them to build toward real world outcomes, though actual fulfillment of outcomes isn't required. So, for example, you might collect data and organize it into a manuscript suitable for submission, but if the data don't warrant actual submission, or the submission doesn't warrant publication, there's no penalty. It is also very important to safely practice peer review; 10% of the grade should be based on a mutually agreed-to peer feedback framework that is described as part of your rubric.

4. *Final class presentation of your intervention:* You'll present the results of your creating, implementing, evaluating and documenting the effects of strategies to address the SDGs, in the course's last two weeks (5%). Presentations will be judged primarily on clarity and compellingness (substance will be judged in #3, Intervention/project).

5. *Midterm and Final exam* (Multiple Choice Questions 17%, narrative response 10%): This will consist of 1 multiple choice knowledge question for each of the 17 SDGs, and a narrative response to a current news article. The SDGs covered in the first half of the course will be addressed in a multiple choice knowledge assessment in week 8. For the narrative response (the other part of the final exam, along with multiple choice knowledge questions on the second half of the SDGs presented), you'll be expected to come up with a clear, plausible, and brief plan to address one of the problems posed in the article, using SDG-related problem-solving skills and knowledge acquired during the course.

Students will have the automated opportunity online weekly to complete an anonymized evaluation of the class. This will be used by the teaching team to iteratively improve the course, and to understand and share (perhaps even publishing) anonymized results of the effectiveness of various components of the course (particularly including effects of in-person vs remote learning).

The use of Artificial Intelligence bots like ChatGPT is encouraged unless otherwise specified, and we'll discuss this more in class. The only "closed book/no AI" evaluative experience we expect for the course will be the midterm and the final exams (both the narrative and multiple choice question sections).

Attendance and Participation

Rather than having specific office hours, I (EF) am usually available 7 days/week, 15-ish hours/day. Note, though, that I don't expect you to be. If I respond to an email on a weekend, holiday, or evening, and there's no rush felt from your end, please don't feel compelled to answer till regular (M-F) UBC work hours.

Students are expected to attend all classes (either by videoconference or in person). Meetings will begin promptly at 2pm PST, please make every attempt to be there on time, and if you have special circumstances that prevent you from joining, please email the teachers. The expectation is that students join all the

(in-person or remote) face-to-face meetings having read and reflected on that week's assigned SDG(s) for class. Students are expected to actively engage in class discussions in larger and smaller groups. The purpose of the hybrid face-to-face meetings is to discuss, integrate, and deepen the learning from course materials, reflect on concepts in a group setting, ask questions, and share ideas and comments about the course content and the interventions being implemented.

Additionally, please complete this [shared spreadsheet](#) by Sunday at midnight each week, confirming whether you attended the class virtually or in-person, as well as opining for a sentence/two about how that week's SDG(s) were related to your intervention.

Preparing for Remote Synchronous Face-to-Face Meetings

- Test your connection, video and audio settings ahead of time

- Turn on your cameras especially during smaller group discussions to get to know each other

- Use real names or provide information on your Zoom username so that we can get to know each other (and easily check attendance)

- Join the discussions and contribute actively, while allowing everyone to share their thoughts in discussions

- Be patient with and sensitive to each other, as you would be anywhere.

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 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; please see my notes above about our eagerness to do an exemplary job of accommodating such. UBC values academic honesty and students are expected to acknowledge the ideas generated by others, to follow the guidance explained here and in/out of class by the professors, and to uphold the highest academic standards in all of their actions.

The use of Chat GPT or other generative AI tools is permitted in this course. If you use generative AI to get ideas and/or partial answers for an assignment and/or to generate any text for a draft or final version of any part of an assignment, you must declare that you have used it. You must also add a couple sentences describing the extent to which it was used, and you must save any generated text from this tool in case it is requested. A TA or the instructor may ask you to provide the generated text in order to help with grading decisions." (source:https://ctlt.ubc.ca/resources/assessment-design-in-an-era-of-generative-ai/communicating-with-students-about-generative-ai/)

Respectful environments
UBC and all Members of the UBC Community share responsibility for ensuring and maintaining an environment that is free from Discrimination. UBC regards Discrimination as a serious offence that is subject to a wide range of remedial or disciplinary measures, including dismissal or expulsion from UBC. (https://universitycounsel.ubc.ca/policies/discrimination-policy/)

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SPPH is committed to providing a positive education experience free from discrimination. If you have had an experience in this course where you feel unsafe, have been mistreated or have witnessed mistreatment, please let us know. If you want to raise this beyond the course instructors, the School recommends the following. You may contact your academic supervisor, the education manager for your program, or the Associate Director-Education. You may also report your concerns to the Faculty of Medicine Office of Respectful Environments, Equity, Diversity & Inclusion (REDI) at https://mistreatmenthelp.med.ubc.ca/. Both SPPH and the REDI Office have procedures in place for recording and acting on reports of mistreatment in the educational environment.

Further details of the policies and how to access support are available on the [UBC Senate Website](.).

Academic Integrity

To help you learn about your responsibilities as a student in this course, please read and understand UBC's expectations for academic honesty outlined in the [Academic Calendar](). Resources such as "[Understanding Academic Integrity]()" can be reviewed to ensure that you meet these expectations. Please see the [Centre for Writing and Scholarly Communication]() for more information on plagiarism and academic citations, and/or [this excellent SFU resource]() or [this one from UBC]() on avoiding plagiarism. As explained further below, students will be expected to have completed the [TCPS-2 core module]() by the end of week 2, and to have submitted their certificate of completion to Dr. Frank via email.

Instructions regarding interventions

The purpose of these typically semester-long interventions is to encourage students to think about and act on SDGs that they believe they can meaningfully learn from and address in a semester in a small team. This assignment includes justifying, creating, and implementing the team's strategy, assessing the outcomes of their efforts, presenting their efforts to the class, and otherwise documenting and possibly publishing results, as agreed to by each group with Dr. Frank's guidance.

Students will be given the opportunity to develop their own intervention strategies. Methodological options will often include educational interventions, surveys, focus groups, participant observations, and interviews, with both quantitative data (eg. multiple choice questions on surveys) and qualitative data (eg. open response questions in focus groups).

Methods will differ for each group's interventions, and Dr. Frank will be available to work closely (often interacting outside of class several times a week by email and occasionally by videoconferenced office hours) with each group to ensure that their methods align with their project objectives and ethical standards. To confirm that students are using appropriate methods, students will be required to submit a project description (more on this below), including an outline of their proposed methodologies and deliverables (including all project forms, i.e. surveys, evaluations etc.) and ethical considerations, and to provide weekly in-class debriefings with their fellow students and the professors.

Ethics reviews for course interventions are to be approved by Dr. Frank, through a BREB-sponsored course-based ethics approval process. Learners will be informed about the requirements for obtaining informed consent or implied consent from the study participants, depending on the relevant needs. Learners will be required to complete the TCPS-2 core module and submit their certificate of completion to Dr. Frank by the end of the course's second week.

Throughout the course, we will discuss the importance of, and guidelines for conducting ethical research, such as the key importance of informed participant consent and scrupulous participant confidentiality or anonymization, per standard UBC Behavioral Research Ethics Board (BREB) instructions. Students are encouraged to use a variety of recruitment strategies (e.g., physical posters, social media, appropriate incentives), and must confirm vigilance about recruitment strategies with Dr. Frank before implementing.

Sample interventions from a prior semester

Below, you can find additional details regarding 5 sample group's initially submitted methods and their associated/discussed ethical implications below for a similar course.

=International Students' Access to Mental Health Resources at UBC
This intervention was originally developed and is still being directly supervised as a project of the UBC Wellness Center, and was led by a student in our class who worked at the UBC Wellness Center, and by an international student in the class. The purpose of this project is to better understand international students' access to mental health resources at UBC, including barriers and opportunities for improvement. As these data were not to be utilized for anything other than an internal report for the UBC Wellness Center, ethics approval was not required for this intervention, but we have interacted with Professor Frank, the students, and the Wellness Center, to ensure that appropriate interventions, confidentiality, incentives, and assessments are provided.

=Sleep at the new St. Paul's Hospital
This intervention is part of an ongoing UBC SPPH master's student thesis with Dr. Frank. This project is being led by a master's student in our class, as well as by 2 other students in the class. The purpose of this project is to examine the effective of an intervention on the sleep of patients, clinical staff, faculty, trainees, administrative staff, families and other visitors in the existing St. Paul's Hospital, with the goal of gaining patient, healthcare worker, and staff perspectives to help ensure that the new St. Paul's Hospital better promotes sleep and wellbeing. As this project is part of a thesis, a separate BREB ethics application was submitted and this project does not fall under this course-based ethics application.

=SDG Garden at SPPH
The goal of this intervention was to revitalize a community garden at SPPH that both produces food for members of the SPPH community, and also provides an opportunity for community members to learn more about community gardens, food security, the social determinants of health and the UN SDGs. We are working with appropriate partners within SPPH and UBC (especially the Farm and

Campus and Community Planning) to ensure we follow ethical / legal norms. Once the garden and associated signage have been developed, a QR code will be placed on some of the signage to allow those interested to provide feedback on the garden. The survey will clearly state that participation is voluntary and will be kept anonymous. Further, the survey will outline that those who partake in the survey are accepting that their anonymous data may be used in publications, and to improve the garden.

=UBC Air Travel Campaign
The goal of this project is to help reduce climate damage from air travel within the UBC community, working with UBC staff charged with accomplishing this Climate Action Plan goal of the Board of Governors (to reduce by 2030 UBC's work air travel by 50%, compared to 2019 levels), and a volunteer expert external to UBC. This was to be accomplished through a community-based social marketing campaign, which was to include posters that would be shared electronically, as well as being physically placed around the UBC campus. These posters were to have been aimed at educating UBC community members on emissions related to air travel, and on less environmentally-harmful alternatives. This project was to include an anonymous survey handed to interested people near the posters to complete and put into an envelope; participants were also able to access surveys through a QR code included on the posters. The purpose of the survey was to have been to examine if engagement with the poster led to changes in participants' understanding about the environmental harms of air travel, as well as their intended future air travel behaviors.

=Self-Reflective Study of Our Class
The goal of this initiative was to examine how the characteristics of our Winter 2 2023 SPPH 527 course (i.e., remote and in-person learning modalities, small group to whole class engagement, all female participants) may have impacted a variety of outcomes, including knowledge and skills acquisition, student engagement, satisfaction, comfort, and safety. At the end of SPPH 527 classes, a 3 minute survey was offered to SPPH 527 students who consented to participate in this study. The survey outlined that participation in this study is anonymous, voluntary, and without impact on the student's grade.

Sample Learning Outputs, Timelines, and Evaluative Criteria

Sample Evaluation

Group Member: Person #1			
Tasks	Total Task Hours (out of >=50) & Week Due	Link to Learning Output	Evaluative Assessment
Environmental Scan of components of existing literature	5 hours – week #3/14	[insert link to Environmental Scan when complete in week 3]	• 5/50=5% of total grade for course Environmental scan: 1. appropriately thoroughly reflects the basic relevant literature and descriptions of similar interventions, demonstrating knowledge of topic under consideration 2. is clearly written 3. has appropriate referencing.
First draft of plan for intervention	5 hours – week #4/14	[insert link to 1st draft of intervention description when complete in week 4]	• 5/50=5% of total grade for course 1st draft of intervention plan: 1. addresses an important question 2. has a practical plan to address that question 3. has an ethically approvable plan 4. is understandably written.
Second draft of plan for intervention	5 hours	[insert link to 2nd draft of intervention description when complete in week 5]	• 5/50=5% of total grade for course 2nd draft of intervention plan: 1. addresses an important question 2. has a practical plan to address that question 3. has an ethically approvable plan

			4. is understandably written and 5. includes a clear timeline with appropriate tasks delineated for each team member; a group learning agreement.
Primary developer of project survey	10 hours – week #7/14	[insert link to Frank-approved survey when complete in week 7]	● 10/50=10% of total grade for course Survey: 1. reflects the literature, using questions verbatim where possible from comparable populations, including optimal survey methodology and content, and asking useful and/or novel questions of novel populations 2. protocol addresses ethical practices particularly regarding subject vulnerability, biases, anonymization, and informed consent, and survey 3. and protocol are developed in collaboration with >=two already-identified and willing volunteer subject matter experts, and approved by Dr. Frank.
Secondary developer of recruitment posters	5 hours – week #8/14	[insert link to Frank-approved recruitment poster when complete in week 8]	● 5/50=5% of total grade for course Posters: 1. reflect best design practice from the literature 2. provide useful content 3. are sensitive to viewer proclivities and vulnerabilities, and 4. protocols for distribution (both paper and electronic versions) are approved by Dr. Frank.

Author of first draft of funding application	15 hours –– week #10/14	[insert link to Frank-approved funding application when complete in week 10]	• 15/50=15% of total grade for course Funding application is: 1. meaningful in purpose and scope 2. well-written 3. based on solid prior science from appropriately cited literature 4. reflective of appropriate attention to ethics and 5. reflective of appropriate attention to practicalities 6. appropriately and collaboratively incorporative of other team members' and classmates' input and 7. approved prior to submission by Dr. Frank.
Third (of 4) authors on Letter to Editor related to survey data	5 hours – week #11/14	[insert link to Frank-approved Letter to the Editor when complete in week 11]	• 5/50=5% of total grade for course Letter to the Editor is: 1. suitably crafted for and submitted to an appropriate journal 2. created in appropriate collaboration with student co-authors, and Dr. Frank as last/senior author.