Program/Course Health & Safety Form

Date: 8/3/2020			Campus: Langley (off campus)	
Faculty: Science and Horticulture				Programs affected: Environmental Protection Technology (required course) ENVI 1216 L10
Date of first group of students meeting: 2/5/2021			eeting:	Date of first group of students leaving: 2/5/2021
Date of fourth group of students meeting: 2/12/2021			meeting:	Date of fourth group of students to leave: 2/12/2021
Number of students anticipated off campus and on which days: The students will be split into four groups (4 or 5 students/group). Each group will be on the field site for a single period of three hours. The key activity (stream flow measurement) can be carried out by a pair of students in about one hour. Other students carry out other activities (infiltrometer, eg) until the first group has completed its turn.			groups (4 o Il be on the ee hours. Th ment) can b about one her activitie	e Instructors Name: John Martin
Date	Time	Group	Students	
5-Feb	9.00-12.00	Α	5	
5-Feb 5-Feb	9.00-12.00 13.00-16.00	A B	5	



Rationale for why students need to be off campus:

Location: Williams Park, 6595 238th Street, Township of Langley

Rationale for the location:

This location has been identified by the instructor as the only local site that can provide both safe access and a reliable flow regime to conduct the activity. Other sites are either unsafe due to depth or excessive flow rates or are too small to provide an effective space for the learning outcomes needed.

Rationale for the activity:

In this off-campus activity students learn how to measure a cross-section of a flowing creek as well as water velocity using a variety of water flow measuring devices. They use these measurements to estimate the total flow in the creek. They also conduct a series of ancillary measurements related to the hydrology of the creek: soil infiltration rate and evaporation rate.

While the calculations and some of these measurements could be carried out on-line, the key element of this activity requires a pair of students at an appropriate field location. Measuring the stream cross-section requires two students: one using a surveying level while the other wades through the stream with a measuring rod. The requirement that the creek be safely crossed (using hip-waders) and meaningfully measured requires a reasonably firm bottom, restricting the number of appropriate sites. Measuring water velocity at different points also requires a pair of students.

The lessons gained by the students from realistic field conditions are considered critical to the learning outcomes and skills acquired by the EPT graduates. While the main concepts may be acquired from on-line learning, the skills developed from using actual equipment (including all scenarios of poor weather and finicky adjustments) in an actual creek (where practice at securing a footing sufficiently stable for good measurements) cannot be acquired in any setting other than field conditions. TAC, our accreditation auditors, expect proper field skills to be delivered by the program, and comfort with sampling in flowing water is one of them.

Have you informed the Registrar of the scheduling requirements for this course? Yes/no and when informed?

The scheduling office will be notified on August 21st.



PPE requirements for students, faculty, and staff (quantity needed).

Risk from breathing aerosols:

Students will not be in close contact with one another or the instructor; the open air site ensures a safe distance can be maintained at all times. Students working in pairs (eg, surveying) are required to be apart by the nature of the exercise. A mask will be required if a safe distance of 6 feet cannot be maintained.

Risk from physical contact with surfaces:

- Sanitizing spray (70% alcohol solution) –8L (2L for each group)
- Extra paper towels
- Boxes of latex gloves (all sizes)
- 5 cans of disinfectant spray (Lysol or other approved brand) for disinfecting inside of waders after use
- Portable waste bin (for discarded gloves, wipes, etc)

All shared equipment (surveying level, surveying rod, flow meters, etc) will be sanitized using spray and wiped before transferring to another student. Students will be asked to wear disposable gloves before handling any equipment to be shared. Enough hip waders will be brought to the site to avoid students having to share, waders will be disinfected at end of day and stored till next week.

All shared equipment will be further sanitized between labs.

Other risks:

Students will conduct every activity as part of a pair or a trio of students; all risks inherent to field work (tripping, etc) will be immediately detected and addressed. No extra equipment is required as it is a standard feature of all field sampling exercises.

Has there been consultation with the Faculty OH&S Committee or the instructor?

- The instructor has been consulted. EPT lab instructor Chris Hauta, BCGEU OH&S committee rep, has also been consulted.

Students must conduct Covid-19 self-assessment prior to arriving on campus and attending class.

Safety plan for employees and students upon arriving on site:

- Orient yourself to the site and observe conditions; dress appropriately for the weather.
- Maintain a safe distance on site at all times; if a safe distance of 6 feet cannot be maintained, a mask must be worn
- Put on gloves prior to handling any shared equipment
- Spray and wipe handled surfaces upon completing an exercise; return equipment to instructor for inspection (and further wiping as appropriate)
- Remove gloves and discard in appropriate container in a safe manner
- Move on to next part of exercise as directed by instructor; wait for instruction and do not come in close contact with a fellow student while waiting
- Once the exercise is fully completed, leave the site in an orderly fashion and ensure a minimum distance is observed

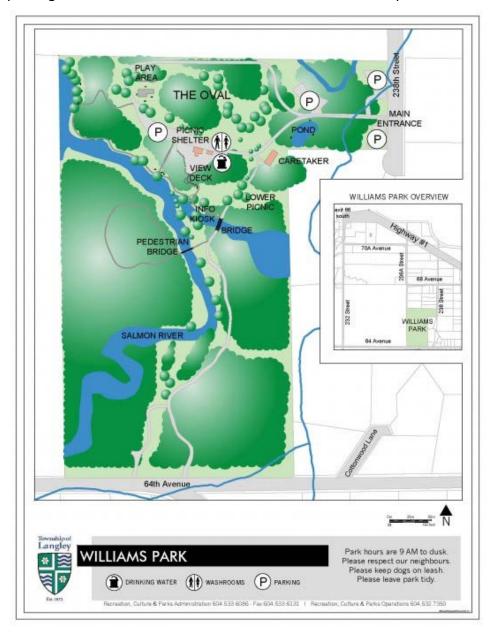
Safety recommendations for traveling to site:

- Ideally, students will come to the site individually in their own vehicle. There is sufficient parking to ensure proper distancing
- Should students who do not live in the same household share a vehicle, it is recommended that a maximum of two students share a vehicle, that they sit as far apart as practical, and that they wear masks at all time during the travel period.

Have you consulted with Dr. David Florkowski, AVPA before submitting this request?		
Submitted by: Dr. Elizabeth Worobec, Dean, F	aculty of Science and Horticulture	
Approved by Provost and VPA:	Signature: Click or tap here to enter text.	
Dr. Sandy Vanderburgh	Date: Click or tap to enter a date.	
Approved by the Office of Health & Safety	Signature: Click or tap here to enter text.	
Name: Click or tap here to enter text.	Date: Click or tap to enter a date.	
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Location of site:

Park in parking lot at P. Follow wide trail down to site located after pedestrian bridge.





Three circles show the stations, all 10 m at least apart.

Red = discharge

Blue = Surveying

Green = Meteorology



COVID 19-Classroom/Shop/Laboratory Safety Plan Checklist

Depar	tment:	Campus:
Comp	leted by:	Date:
<u>Overvi</u>	iew_	
• • When	activities/instruction. The intent is to ensure that minimus spaces for employees and students. This checklist is by no means exhaus spaces that may need to be considered plan. The requirements identified are constructed by the control of the plan. The requirements identified are constructed by the control of the plan.	mpleted for spaces being used for face to face im requirements are being considered to maintain safe in our classrooms, shops and laboratories. stive and there may be other measures unique to your ered in developing your classroom/shop/laboratory safety ensistent with the current guidelines provided by the for Disease Control and WorkSafe BC. the implementation details for each item indicated as "yes".
1.	Orientation, information and train provided to employees and studentes	
2.	Handwashing posters posted in all	
	Yes	Not Applicable

Yes	Not Applicable
Nearest handwashing	sink located, is stocked and has been identified to students?
Yes	Not Applicable
Students have been a classroom/shop/lab?	dvised that no eating/drinking is permitted during classes in
Yes	Not Applicable
Physical distancing po	osters posted in classrooms/shops/labs and throughout the common
areas? Yes	Not Applicable
The maximum numbe 2-meter physical dista	er of persons allowed in a space has been determined in order to main ancing?
Yes	Not Applicable
Occupancy limit signa	age posted on door? Not Applicable
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9.	Directional arrows to support flow of people throughout the teaching space are in place? Provide a floor plan with your plan indicating direction of flow of people, location of workstations, entry and exit points.				
	•	t Applicable			
10.	LO. If applicable, Facilities has been notified of addibuilding/classrooms/shop/lab?	tional cleaning needs for			
	Yes No	t Applicable			
11.	11. If applicable, Facilities has been notified of addi classroom/shop/lab?	tional signage required for the			
	Yes No	t Applicable			
12.	12. Students have been provided instruction on wh gatherings, leave the building, in their cars)	ere to spend their break time? (No social			
	Yes	t Applicable			
13.	13. Classroom/shop/lab set up to allow for 2 meter Yes No	s physical distancing between all occupants? t Applicable			
14.	14. Demonstration and work areas set-up to allow the Yes No.	for 2 meters physical distancing? t Applicable			

Yes	Not Applicable
6. Handouts, pa provide their	pers, pens, etc. are not physically provided to students? (Use e-versions, studerown, etc.)
Yes	Not Applicable
•	le, students should have their own dedicated tools/equipment? (Items are not een students during class).
Yes	Not Applicable
8. Common tou Yes	ch points and tools/equipment that must be shared are identified? Not Applicable
9. Cleaning and touch points?	disinfecting program in place for cleaning/sanitizing shared tools/equipment are
Yes	Not Applicable
	employees are given instruction for the safe and correct use of any tizing materials?
Yes	Not Applicable

21.	Safety Data Sheets available for cleaning/disinfecting supplies? Yes Not Applicable				
22.	protective equipment dispose/clean (as ap	s are given instruction for the safe and correct use of any provided personant (PPE)? Instruct students/employees on how to safely use, remove, and plicable) any required PPE for the class. Please note in regards to Covidbe considered when physical distancing and other measures are not ent.			
	Yes	Not Applicable			
23.		s been reviewed with students and employees? Students in need of first for and instructor to call First Aid Attendant. Follow directions of First Aid			
	Yes	Not Applicable			
24.	A process has been o	developed to deal with employees not following the control measures? Not Applicable			
L 25.	A process has been of measures?	developed to deal with students not following the established control			
	Yes	Not Applicable			

26	A process is in place to advise employees to stay home if sick, and how to report COVID-19 like symptoms? (Supporting measures should also be in place to accommodate absences and provide coverage, if applicable)				
ſ	Yes Not Applicable				
27	. A process is in place to advise students to stay home if sick and how to report COVID-19 like symptoms? (Supporting measures should also be in place to accommodate absences?)				
	Yes Not Applicable				
28	. Students are advised to self-monitor and notify instructor if not feeling well?				
	Yes Not Applicable				
29	. Employees are encouraged to self-monitor and to notify supervisor if not feeling well?				
	Yes Not Applicable				