Intent: The intent of this document is to provide science-based PPE guidance to the University of British Columbia Okanagan community to prevent the spread of COVID-19. This document provides guidance about the use of Personal Protective Equipment (PPE), including industry standard face masks/respirators, face shields and gloves. This document also discusses the use of non-medical and homemade masks and shields in relation to COVID-19 and other infectious diseases.

Visit ubc.ca/covid19 and https://ok.ubc.ca/covid19/ for more information about UBC’s response to COVID-19, including frequently asked questions.

Globally, our scientific knowledge surrounding COVID-19 is changing and expanding daily. This document is based on current scientific knowledge at the time of writing.

Current health guidance relating to the general use of PPE
Throughout the current COVID-19 global outbreak UBC has taken direction on infection prevention from the Provincial Health Officer, the BC Centre for Disease Control (BCCDC) and Interior Health (IH), and continues to do so. This guidance can be expected to evolve as these agencies continually monitor accumulating scientific evidence to determine how we can best prevent the spread of COVID-19.

Members of the Campus Community are encouraged to access the most up-to-date information relating to personal protection and exposure control from the BC Centre for Disease Control at www.bccdc.ca.

As this document has been developed, the current health guidance from the above agencies can be summarized as follows:

• Incorrect selection and/or use of PPE may increase your risk of exposure.
• N95 Respirators, Medical masks and other critical PPE may be in short supply and are needed by health care workers to safely care for patients.
• Medical /surgical masks should be used by people who are sick and health care workers.
• Using non-medical or homemade protective equipment does not diminish the need for physical distancing, frequent hand washing and avoiding touching your face.
• There is no established proof that wearing non-medical or homemade protective equipment protects the person wearing it, and it may provide a false sense of security.
• Wearing a non-medical mask in public may help to limit the travel of your respiratory droplets when you cough, sneeze or talk - which may help to protect others.
• Physical distancing should remain our primary focus for preventing the spread of illness.

Respirators & Masks
Respirators are one type of PPE, and conditions of their usage for workplace safety is closely regulated by WorkSafeBC. To be effective, all respirators used must be fitted to an individual’s face through a fit test.

Masks (surgical masks, procedure masks) do not require a fit test. These are referred to as a medical masks, and known as PPE, because they meet a set of regulated performance standards (ASTM). Used as PPE, these masks are used in medical settings. These may also be provided to residents on campus who are ill and in their own areas within residence. Those who are symptomatic should not be attending campus or attending work/class.
Health care workers may be directed to wear either N95 Respirators or Medical Masks (Surgical/Procedure) as part of their PPE for specific tasks and under the regulations as they pertain to health care settings. Surgical / procedure masks may also be used in healthcare settings on patients who are symptomatic.

UBC Okanagan Employees who require a respirator for their work have been issued one have taken appropriate fit testing for use in the workplace. Most employees at UBCO receive a half-face filtering respirator that has filters that are consistent with the hazards that are being controlled.

**Gloves**
There are many types of gloves, and the choice of glove must take into account all of the hazards that may be present, as gloves are rated for their usefulness as a barrier to different types of hazards. Medical gloves create a barrier around the hands to reduce an individual's risk of exposure to hazardous agents.

This type of PPE can be used during infectious outbreaks but must be used carefully to avoid transferring contamination between the handling of contaminated and clean items. Although gloves do not prevent transference of the infectious material and chemicals when workers touch their faces with contaminated gloves, they may be used as a physical reminder to not touch one's face.

**Eye & Face Protection**
Eye and Face protection is not recommended to prevent the spread of COVID-19 where there is not an occupational requirement.

Eye protection, through safety glasses or goggles, and face shields are recommended for health care workers where there is the potential for any spraying or splattering of blood or other bodily fluids. Safety glasses can be found in various different styles and offer side protection in the form of either wraparound arms or shields. Goggles offer a higher degree of spray/splatter protection compared to safety glasses due to their ability to form a tight seal around the eyes. Face shields can protect the entire face from biological hazards. A face shield is often considered a secondary safeguard to protective eyewear. In other words, face shields are typically not used on their own. As per WorkSafeBC requirements, these types of PPE need to meet CSA Standards for use in the workplace.

*NOTE:* There is evidence that the use of a face shield may prevent the spread of virus in droplets when used by those who are infected. Although there are limitations to this application, face shields used in this way may be effectively used as a source control, not as a form of PPE.

**Source Control: Information about using non-medical or homemade protective equipment**
Non-medical/homemade masks are not classed as Personal Protective Equipment and, on its own, is not an effective measure to keep yourself save from viral infection ([http://www.bccdc.ca/Health-Info-Site/Documents/COVID19-Prevention.pdf](http://www.bccdc.ca/Health-Info-Site/Documents/COVID19-Prevention.pdf)). Similarly, face shields, when used as source control are also not considered as Personal Protective Equipment with similar limitations as non-medical/homemade masks.

There is evidence that the use of a non-medical face mask/face shield may prevent the spread of virus in droplets when used by those who are infected. Although there are limitations to this application, non-medical face masks/face shields, used in this way may be effectively used as a source control, not as a form of PPE. There is wide variability in the effectiveness of various non-respirator face coverings and additional
risks associated with their use. See here for HSE guidance on Limitations, and Use and Care instructions for the use of non-medical face coverings as source control. Focus on physical distancing must remain the goal of our collective efforts.

Note Effective Wednesday, September 16, 2020, UBC students, faculty, staff and visitors are required to wear non-medical masks, when indoors on our campuses as outlined in the UBC COVID-19 campus rules.

Where PPE or other related controls such as Face Masks and Face Shields are used in an occupational setting, it is the responsibility of the Supervisor to ensure that employees are provided with education and training on use and limitations. UBC is also responsible for providing any such controls that it requires employees to use in an occupational setting. HSE is able to support supervisors in developing education and training around use and limitations in situations where appropriate.

Where not part of a unit’s Safe Work Plan, Employees and other members of the community may choose to wear non-medical or homemade protective equipment at their discretion, provided it does not create additional safety concerns. If you are considering using a non-medical or homemade mask, you can find information about how to do so safely on the BC Centre of Disease Control website.

Personal Protective Equipment in the workplace
Based on the above medical guidance and circumstances on our campuses, UBC’s guidance on the use of PPE is as follows:

• UBC employees carrying out tasks that require PPE, including respirators, will continue to be supplied with the appropriate equipment, as per the relevant safe working procedure.
• Work will be assessed to ensure all work can be performed while respecting social distancing recommendations. Where employees are required to work in close proximity with others, the use of non-medical masks, barriers and PPE will be assessed on a case-by-case basis.
• UBC will not assign the use of N95 or medical masks for use by employees, unless there is a pre-existing occupational requirement, such that these are reserved for medical workers on the front line of the COVID-19 response.
• UBC will only consider the use of non-medical or homemade masks and face-shields in non-medical situations as source control (where consideration of all other controls has been exhausted), not as PPE, as this equipment does not meet the performance standards for workplace PPE and have significant limitations as it relates to effectiveness.
• Members of the UBCO community, including UBC employees, may wear a non-medical mask or homemade mask and/or faceshield at work, provided it does not interfere with them safely carrying out their duties.
• UBC asks the campus community to be respectful of students, faculty and staff who make choices that are different from their own.

Occupational PPE vs. PPE used for Community Health Purposes
When PPE is used for specific tasks and required to prevent occupational exposures (Occupational PPE) it is important that the PPE is donned and doffed as is normally required and not left on to prevent Community Health concerns (COVID19). This guidance is aimed to prevent cross-contamination of public areas on campus with occupational hazards.
The role of PPE in protecting employees

PPE is used to protect employees from specific risks, however it is the least effective method of protecting employees, as outlined in the below Hierarchy of Controls diagram. The diagram also includes examples of current UBC COVID-19 risk mitigation activities.

Advice on PPE at UBC

If you have any questions or require advice about PPE at UBC Okanagan, please contact Health, Safety & Environment at HSE.ok@ubc.ca.