COVID-19 Workspace Safety Plan – Lab Specific

Use of this template: All light italicized grey font are instructional and must be removed before final copy is approved.

This workspace safety plan will assist Principal Investigators who wish to continue or resume research activities in their lab. This plan will include a review of activities to be undertaken in the lab to ensure effective controls are in place to prevent the spread of COVID-19. Principal Investigators are responsible for ensuring this document reflects current government guidance and notices which can be found, along with information about UBC’s response to the pandemic at https://covid19.ubc.ca/.

This plan must be reviewed by your Local Safety Team, and signed by your Unit Head/Director. Once complete, the plan can be submitted with your online application to return to research.

Resources to Consult

The following guidance documents and resources were used in the development of this plan:

- Preventing Exposure
- Personal Protective Equipment
- Physical Distancing Guidelines
- Reporting COVID-19 Exposure
- Communications Resources
- UBC Research Resumption webpage
- WorksafeBC

Section #1: Lab information

<table>
<thead>
<tr>
<th>Department</th>
<th>Materials Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>Applied Science</td>
</tr>
<tr>
<td>Building(s)</td>
<td>Brimacombe</td>
</tr>
<tr>
<td>Lab(s)/workspace(s)</td>
<td>Room 246 and 248A/B</td>
</tr>
</tbody>
</table>

Introduction to Your Lab

The facility in Brimacombe is used to support the research groups of Professors Poole, Militzer and Sinclair and their work on Microstructure Engineering of Advanced metals and alloys. The group is approximately 20-25 graduate students, postdoctoral fellows and research engineers. These labs in Brimacombe contain the DSI Thermomechanical Simulators (Gleeble 3500 and Hot Torsion H-100), the Laser Ultrasonics for Metallurgy system and basic sample preparation and characterization facilities.

Section #2 - Risk Assessment

1. Lab/workspace Occupancy (under proposed COVID-19 operations)

   Brimacombe 246 – 2 people
   Brimacombe 248A and 248B – 1 person
COVID-19 Safety Plan Template

Confirm that you have discussed each employee’s comfort level with returning to work and have addressed any concerns, or will require further assistance in doing so. Any worker (staff, students, faculty, post docs, research associates, technicians and other research personnel) who has concerns about returning to work on campus can request an exemption to his/her supervisor.

NORMAL OPERATIONS
Brimacombe 246 – Normal operations up to 5 people in the lab
Brimacombe 248A/B – up to 4 people

9 people in total.

2. Hazard Identification
Describe what hazards exist in your lab/workspace; both research-related (chemicals, heavy machinery) and COVID-19-related (areas that require closer personal interaction, equipment/instruments that cannot maintain social distancing i.e. that require >1 person to operate)

Brimacombe 246 – mechanical pinching and high temperatures (possible burns)
COVID-19 specific
COVID-19 Safety Plan Template

- change of Gleeble machine configuration: requires 2 people to work together for 30 minutes, frequency anticipated twice in 1 month
- move of polishing machine from Brimacombe 246 to 248: requires 2 people 15 minutes, frequency once

Brimacombe 248A/B – Chemicals (nitric acid, picric acid, sodium hydroxide, ethanol, sodium metabisulphide, hydrogen peroxide), polishing (possible scrap or cut to hands), cutoff saw (possible scrap or cut to hands)

3. Employee (HQP, research staff, other) Input/Involvement

Detail how you have involved frontline workers (HQP and research staff) and Joint Occupational Health and Safety Committees (JOHSC) and/or Local Safety Teams (LST) in identifying risks and protocols as part of this plan.

Have consulted with students and staff who use the space, consulted with LST (Gary Lockhart, Chair).

Describe how you will publish your plan (online, hardcopy) and otherwise communicate workplace health measures to employees. Guidelines from SRS are available here: https://srs.ubc.ca/covid-19/health-safety-covid-19/working-safely/

Will post hardcopy of plan on doors to laboratories and on the Department of Materials Engineering website. Workplace health measures will be discussed in weekly research group meetings.

Section #3 – Hazard Elimination or Physical Distancing

The following general practices shall be applied for all UBC buildings and workspaces:

- Where possible, workers (HQP, research staff, others) are instructed to work from home.
- Anybody who has travelled internationally, been in contact with a clinically confirmed case of COVID-19 or is experiencing “flu like” symptoms must stay at home.
- All employees are aware that they must maintain a physical distance of at least 2 meters from each other at all times
- Do not touch your eyes/nose/mouth with unwashed hands
- When you sneeze or cough, cover your mouth and nose with a disposable tissue or the crease of your elbow, and then wash your hands
- All employees are aware of proper handwashing and sanitizing procedures for their workspace
- Supervisors must ensure large events/gatherings (> 50 people in a single space) are avoided
- Supervisors must ensure that all workers have access to dedicated onsite supervision at all times; via their own presence, members of safety committees, campus security or other. When working alone, HQP and staff must be aware of working alone procedures and how these have been adapted for COVID-19.
- All staff wearing non-medical masks are aware of the risks and limitations of the face covering they have chosen to wear or have been provided to protect against the transmission of COVID-19. See SRS website for further information.
COVID-19 Safety Plan Template

- Note transportation/vehicle guidelines if applicable: 1 Person per vehicle, unless the vehicle is large enough to maintain 2m between occupants.

4. Scheduling
For those required or wanting to resume work at UBC, detail how you are rescheduling employees (e.g. shifted start/end times) in order to limit contact intensity at any given time at UBC.

Discuss your working alone procedures and how they will be adapted for this safety plan. Also describe how you will track those entering/leaving work i.e. sign in/sign out process

Working alone procedures
Brimacombe 246: not allowed
Brimacombe 248: must be someone working in Brimacombe 246, will check 248 on an hourly basis (minimum)

NOTE: either Sabyasachi Roy or Mariana Rodrigues will be present in Brimacombe 246 when work is conducted in either lab.

Sign in/out procedure:
FOB when entering building
Brimacombe 246 and 248A/B – hardcopy sign in/out document for each laboratory

5. Occupancy limits, floor space, and traffic flows
APSC recognizes that labs are dynamic environments and it may be challenging to adhere to physical distancing guidelines. Nonetheless, controls must be in place to keep personnel spaced at least 2m apart at all times. Clear communication of this to employees, monitoring of implementation, in addition to physical controls (signage) are needed.

As such: Using floor plans and/or photographs of your lab/workspace:
1) Identify and list the rooms and maximum occupancy for each workspace/area;
2) Illustrate a 2 metre radius circle around stationary workspaces/benches/instruments and common areas or equivalent approach to social distancing; and
3) Illustrate one-way directional traffic flows
We have reduced occupancy to less than 33%. Will coordinate ingress and egress between occupants.

Section 4 – Engineering Controls

6. Cleaning and Hygiene
Detail the cleaning and hygiene regimen required to be completed by HQP, research staff and the PIs for common areas/surfaces (Custodial has limitations on cleaning frequency, etc.).

Outline specific cleaning processes and schedule for high-touch equipment, specialized/sensitive equipment or other unique circumstances to your lab/workspace. Detail how and what types of cleaning products and disposal options you will provide. If possible, include cleaning stations/infrastructure on your lab photos/plan.

### High contact points and instruments requiring sanitization:

- **Brimacombe 246**:
  - Doorknob
  - Gleeble computer keyboard and mouse
  - Gleeble system interactive panel
  - Gleeble door handle
  - Screw driver, Wrench or any other tool used
  - Spot welding device
- **Brimacombe 248A/B**:
  - Doorknob
  - Microscope joystick
  - Microscope computer keyboard and mouse
  - Polishing machine front panel and buttons
  - Cutting machine knobs and handle

Users are required to disinfect the high contact points listed above at the beginning and end of their shift. Cleaning supplies/disinfectants have been secured for the laboratory. Training on disinfecting surfaces to be provide by laboratory managers (Sabyasachi Roy and Mariana Rodrigues). Disposal of cleaning supplies will be done in accordance with Brimacombe building central plan.

### 7. Equipment Removal/Sanitation

Detail your appropriate removal of unnecessary tools/equipment/access to areas and/or adequate sanitation for items that must be shared that may elevate risk of transmission, both research-related (i.e. instruments, tools) and general (i.e. coffee makers in break rooms).

Tools not necessary for experiments will be stored in cabinets.

### 8. Safety Infrastructure Requests (Partitions, Plexiglass installation)

Describe any needs for safety infrastructure i.e. physical barriers, plexiglass installation required for your lab/workspace and if possible include them on your photos/room plan.

Not necessary. There is sufficient space for physical distancing in the labs.

### Section 5 – Administrative Controls

#### 9. Communication & Training Strategy for Employees

Describe how you (the PI) have or will communicate the risk of exposure to COVID-19 in the workplace to your HQP/research staff/other employees and the safety controls in place to reduce such risk.
COVID-19 Safety Plan Template

Detail how you will ensure that all employees successfully complete the Preventing COVID-19 Infection in the Workplace online training and orientation to your specific safety plan

- All employees/students must provide hardcopy documentation to laboratory managers that they have completed “Preventing COVID-19 Infection in the Workplace.
- We will have a mandatory “return to work” meeting with all users prior to anyone returning to the laboratory.
- We will have mandatory safety meetings at our weekly group meetings for users.
- Users will confirm that cleaning and disinfection has been done upon entry and before leaving the laboratory on the sign out sheet located on the door.
- Any concerns from employees students should be communicated to laboratory supervisor: Professor Warren Poole.
- No new staff will be allowed in Phase 1.

10. Signage
Detail the type of signage you will utilize and how it will be placed (e.g. floor decals denoting one-way walkways and doors, ‘cleanliness state’ of equipment/instruments, hand-washing guidance). See WorksafeBC for signage guidelines and templates.

Work zones will be demarked in the laboratory by tape placed on floor.

11. Emergency Procedures & Reporting
Pis must ensure that all employees entering the lab should be aware of the Building Emergency Response Plan (BERP) and have access to it. If applicable, detail your strategy to amend your lab’s emergency response plan procedures during COVID-19.


12. Monitoring
Describe how you will monitor your workplace (supervisor, departmental safety representative, other) and update your plans as needed; detail how employees can raise safety concerns (e.g. via the JOHSC or Supervisor).

Supervisor, Professor Warren Poole
One of the laboratory managers, (Sabyasachi Roy or Mariana Rodrigues) will be present at all times to oversee the laboratory and address and safety concerns raised by any user. Laboratory managers will assess compliance with this safety plan using a checklist each day.

Section #6 – Personal Protective Equipment (PPE)

13. Personal Protective Equipment
UBC has a central process for purchasing PPE. Describe what PPE you will require for your lab.

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<tr>
<th>#</th>
<th>Type of PPE</th>
<th>Activity and PPE Use Rationale</th>
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<tbody>
<tr>
<td>Gloves</td>
<td>Brimacombe 246 and 248A/B -Normal procedure when using equipment</td>
<td></td>
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<tr>
<td>Face masks</td>
<td>Brimacombe 246 and 248A/B - Optional but recommended</td>
<td></td>
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</tbody>
</table>
Face shields, face mask, goggles, laboratory coats

Brimacombe 246: For changing of Gleeble set up from low force to high force jaws. Physical distancing will not be possible for these short periods since 2 people are required. (30 minutes, twice a month maximum)

Googles, gloves and laboratory coats

Brimacombe 248A/B: PPE required for normal work with chemicals

- Laboratory coats to be cleaned by service (through storekeeper in Frank Forward Building, Marlon Blom)

Acknowledgement

I confirm that this Safety Plan has been shared with all workers (HQP, research personnel, etc.) who will be accessing this space both through email and will be made available as a shared document. Workers can either provide a signature or email confirmation that they have received, read and understood the contents of the plan.

Date: June 2, 2020
Name (Manager or Supervisor): Warren Poole
Title: Professor

Department/School Head/Director Approval

John D. Madden, AMPEL Director
Name, Title: John D. Madden, AMPEL Director
Date: 4 June 2020
Signature: Signed

Daan Maijer, Dept. Head
Name, Title: Daan Maijer, Dept. Head
Date: 4 June 2020
Signature: Signed
Appendix

Please attach any maps, pictures, departmental policies or risk assessments applicable UBC Guidance documents, where necessary, and other regulatory requirements referred to in document.

APSC specifically requests photographs of your current lab layout, as well as your proposed usage layout i.e. where HQP will work, what areas will be closed off, where signage will be placed, etc. If floor plans of your lab/shared workspace is available, please append these as well.