GENERAL HEALTH AND SAFETY RISK ASSESSMENT FORM

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| Site | **Collaborative Teaching Laboratory (CTL) Teaching Labs** | **Department** | **College of Engineering & Physical Sciences** | | **Version / Ref No.** | **18** |
| **Activity Location** | **Collaborative Teaching Laboratory (CTL) Building** | **Activity Description** | **COVID-19: Building Risk Assessment**  **Maximum building user utilisation 900. Maximum CTL staffing 33 and Teaching Academic staff plus demonstrators 20.**   * **Wet Lab: student capacity: 150** * **Dry Lab: student capacity: 176** * **E Lab: student capacity: 204** | | | |
| **Assessor** | **Mala Patel** | **Assessment Date** | **25/8/2021** | **Date of Assessment Review** | **20/12/2021** | |
| **Academic / Manager Name** | **Dr Adrian Wright / Mala Patel** | **Academic / Manager Signature** |  | | | |

| Hazard Assessment | | | | Control Assessment | | | | | | | | | Actions | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Hazard Category | Hazards Identified | Who might be harmed?  Staff  Students  Contractors  Others | How might people be harmed? | Existing Control Measures | Initial Risk Rating | | | Are these adequate?  Yes/No | Changes to/ Additional Controls | Residual Risk Rating | | | Owner | Due  Date | Action Complete |
| S | L | R | S | L | R |
| Organisational | Psychological well being | Staff Students and Visitors | Anxiety and stress caused by concerns around returning to work and studies on Campus | Regular communication is in place (individual and group) via CTL intranet, *‘All staff’ team meeting, one to one meetings with line manager, health and safety committees/forums* to ensure staff and students are not ill-informed about returning to work/study safely.  Advice is shared with staff members and students and they have been fully briefed and kept up to date with current advice on staying protected through the University’s lines of communications (i.e. line managers, Internal Comms) and shared with staff via CTL intranet site, ‘All staff’ team meeting, one to one meetings with line manager, health and safety committees/forums and the University’s Coronavirus FAQs [click here](https://intranet.birmingham.ac.uk/staff/coronavirus/faqs-for-staff.aspx).  Risk assessment shared and an electronic copy is available on the CTL Shared Drive (K)/Health & Safety/ CTL COVID RAs/COVID RAs */ University webpage (*[*https://intranet.birmingham.ac.uk/staff/coronavirus/phased-campus-reopening-building-risk-assessments.aspx*](https://intranet.birmingham.ac.uk/staff/coronavirus/phased-campus-reopening-building-risk-assessments.aspx)*)*  New workplace/controls put in place to reduce risk of exposure to COVID 19 are documented in and disseminated to employees through Line Managers and *staff*. These include:   * [***Local induction materials***](https://canvas.bham.ac.uk/courses/55598) * [***COVID-19: Building Risk Assessment***](https://intranet.birmingham.ac.uk/staff/coronavirus/phased-campus-reopening-building-risk-assessments.aspx)   Line managers are aware of how big changes to working arrangements may cause additional work-related stress and affect their employees’ mental health and wellbeing and individuals have been made aware via *CTL induction, team meeting, All Staff meeting, one to one meetings with line manager, health and safety committees* of guidance available in relation to this:  <https://www.hse.gov.uk/stress/>  <https://intranet.birmingham.ac.uk/staff/coronavirus/Coronavirus-wellbeing-support.aspx>  <http://www.selfhelpguides.ntw.nhs.uk/birmingham/leaflets/selfhelp/Stress.pdf>  <https://intranet.birmingham.ac.uk/hr/wellbeing/workhealth/stress-management-guidance.aspx> | 2 | 2 | 4 | Yes |  |  |  |  |  |  |  |
| Organisational | Psychological well being | Staff Students and Visitors | Anxiety and stress caused by concerns around working on Campus | Managers hold regular informal discussions with their team and look at ways to reduce causes of stress.  Concerns on workload issues or support needs are escalated to line manager; staff *will inform their line managers in 121 or team meetings.*  Information on the full range of Coronavirus – Covid-19 support available for staff including those who were previously advised by Occupational Health or a medical professional (including a midwife in respect of pregnancy) ***not*** to work on campus and staff who are in the [clinically extremely vulnerable group](https://www.gov.uk/government/publications/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19#what-will-change-from-1-august) (i.e. those previously advised to shield) is available [here](https://intranet.birmingham.ac.uk/hr/wellbeing/index.aspx).  Existing risk assessments including those for new or expectant mothers reviewed and revised to reflect new working arrangements. Reasonable adjustments made, including those needed for PEEPs especially in relation to who will assist with their evacuation in an emergency, to avoid staff that require them including disabled workers being put at a disadvantage.  Employees who have concerns about either working on Campus or working from home/remotely have discussed these with their line manager or supervisor either using the [University’s Covid-19 Return to Campus Discussion Form](https://intranet.birmingham.ac.uk/hr/documents/public/Wellbeing/Covid-19-Return-to-Campus-Discussion-Form.docx) or an alternative method whereby concerns have been formally recorded and where necessary they have been signposted to the [EAP](https://intranet.birmingham.ac.uk/hr/wellbeing/workhealth/employee-assistance-programme-eap.aspx) for support and / or a referral to occupational health has been made using a standard Management Referral available via the HR Portal.  Employees are made aware of support mechanisms available to them (e.g. counselling, occupational health, HR, etc.) through line managers, internal communications and University webpages:  <https://intranet.birmingham.ac.uk/staff/coronavirus/faqs-for-staff.aspx>  <https://intranet.birmingham.ac.uk/hr/wellbeing/index.aspx>  <https://intranet.birmingham.ac.uk/hr/wellbeing/workhealth/index.aspx>  This link is for students:  <https://intranet.birmingham.ac.uk/student/coronavirus/Wellbeing.aspx> | 2 | 2 | 4 | Yes |  |  |  |  |  |  |  |
| Biological | Virus transmission in the workplace | Staff Students and Visitors | Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking. | Staff continue to work using the mixed model of site and home based (hybrid working) as agreed with line manager, in line with Government and University guidance.  Managers/supervisors ensure staff and students with any form of illness do not attend work/campus until the illness has been verified as not being Covid-19.  Managers/supervisors keep track of when staff and students can return to work/campus after the self-isolation period.  Regular access to the Lateral Flow Device tests and kits are available to staff and students who are coming onto campus. Staff and students are strongly encouraged to test twice a week and to record their results on the Government’s reporting website site:  <https://www.gov.uk/report-covid19-result> and to report any positive test results to the University using the [COVID-19 reporting form](https://intranet.birmingham.ac.uk/staff/coronavirus/test-and-trace.aspx).  The University’s [***On-line induction materials for returning to campus***](https://intranet.birmingham.ac.uk/staff/coronavirus/essential-resources-and-checklist.aspx) combination of the guidance and videos have been provided and completed for all staff working in University buildings*.*  Schedules for essential services and contractor visits revised to reduce interaction and overlap between people and building managers and occupants informed of when the visits will take place and which services are being maintained e.g., *carrying out services on Wednesday afternoon or out of term time.*  Un-essential trips within buildings and sites discouraged and reduced, e.g. *building access restricted via card access, staff use of virtual platforms, radios or telephones encouraged ensuring cleaning them between use.* | 3 | 2 | 6 | Yes |  |  |  |  |  |  |  |
| Environmental | Virus transmission in the workplace due to contact with other people | Staff Students and Visitors | Exposure to respiratory droplets carrying COVID-19 from an infectious individual transmitted via sneezing, coughing or speaking. | Workplaces and routines changed to reduce the number of people staff come into contact with including:   * Change to peak staff entry and exit times. Staff have staggered their start and finish times * Arrival and departure times at work have been staggered to reduce crowding into and out of the workplace, taking account of the impact on those with protected characteristics. * CTL Staff work separately from Lecturers and demonstrators , students and visitors to reduce contact between employees. * Fixed teams or adjusted booking processes in use to reduce the number of people in a lab at the same time to reduce the number of contacts. Schools will be encouraged to allocate students to groups designated to lab workstations to reduce contact with other groups. * Work stations moved or staff relocated to reduce contacts. Provision of additional screens where needed to segregate people. Desks are arranged with employees facing in opposite directions or working side by side. Display Screen Equipment (DSE) assessments reviewed and revised. * Screens or barriers used to separate people from each other especially where people come into close proximity with each other including at points of service, for example at lecturer’s lectern, office desks and counters. * Areas of work marked out with floor tape to ensure adequate social distancing is in place. * Back-to-back or side-to-side working (rather than face-to-face) used whenever possible. * Number of people each person has contact with is reduced by using ‘fixed teams or partnering’ (so each person works with only a few others). * Welfare areas for serving hot food or drinks have been assessed in accordance with government guidance to reduce the number of people being able to congregate. Smaller kitchens continue to be used at reduced capacities. All users are encouraged to wash or sanitise their hands prior to using equipment (kettle, drinking water fountains, microwaves etc.) and to wash or sanitise their hands after use. Additional signage for the correct method for handwashing displayed. Cleaning materials are available to clean equipment before and after use and signs displayed with information about cleaning and also a contact to replenish the any cleaning materials. Signage also asks users to avoid touching the water cooler/fountain spout with their bottles or hands. * Where available safe outside areas used for break. * Welfare facilities (toilets etc.) have signage to remind people to wash their hands prior to and after use and also of any other measures required to ensure safe use of the facilities including building users being reminded to leave the facilities in a respectable condition.   To help contain clusters and outbreaks and assist the University with any requests for data by the NHS Test and Trace service a temporary record of shift patterns and teams and attendance in the building is kept for 21 days. NHS Test and Trace QR code is displayed in the building for visitors and staff to scan using the NHS Covid-19 app.  Work has been arranged so that staff are able to maintain the government guidelines for workplaces.  The latest Guidelines on these measures can be found by clicking the following link [Workplace Guidelines.](https://www.gov.uk/guidance/working-safely-during-covid-19)  Due to the potential increased risk of transmission from aerosol transmission steps have been taken to avoid people needing to unduly raise their voices to each other e.g. not playing music or broadcasts at a volume that makes normal conversation difficult, using microphones during training sessions.  Wherever one way systems assist the flow of people and avoid crowding or congestion they should be maintained, with appropriate signage and other visual aids in place.  Visits from people outside of the building continue to be managed via remote connection/working where this is an option. Where this is not an option visitor and contractor arrangements have been revised to ensure:   * Clear guidance on how to reduce the risk of spreading COVID-19 to people is given to them, for example, by phone, on the website or by email or with on-site signage and visual aids and the particular needs of those with protected characteristics, such as those who are hearing or visually impaired have been considered. * Host responsibilities related to COVID-19 have been established and any necessary training for people who act as hosts for visitors has been provided. * Entry and exit routes for visitors and contractors have been reviewed to minimise contact with other people. * In shared facilities e.g. with other employers COVID-19 related arrangements have been co-ordinated and there is co-operation by all occupiers. This includes landlords and other tenants. * Visitors are told they should be prepared to remove face coverings if asked to do so by police officers and staff for identification. * Information provided to visitors does not compromise their safety.   These measures are monitored by the local supervising staff member- CTL Operations Team and where necessary concerns fed back to the third party manager.  Information provided and signs displayed encouraging people to use the stairwells rather than lifts unless they have difficulty using the stairs and to wear face coverings inside lifts when used.  Non-work related gatherings (social) amongst employees have been discouraged whilst at work and alternative arrangements made where possible e.g. meeting virtually or outside.  Large gatherings including events in public spaces that are organised by the University are only permitted with steps to mitigate the risk of transmission and in line with COVID-19 Secure guidance including the completion of a specific risk assessment.  [Working safely during coronavirus (COVID-19): guidance from Step 4 - Guidance - GOV.UK (www.gov.uk)](https://www.gov.uk/guidance/working-safely-during-covid-19)  Managers perform frequent evaluation against social contact controls. The CTL Operation team will monitor the visitors’ logbook and discuss work schedule on a weekly basis in the weekly Operations meeting to minimise the social contacts in the workplace. Staff are reminded *via* team briefing and informal discussionson a daily basis of the importance of reducing social contacts both in the workplace and outside of it.  Near-miss reporting is encouraged to identify where controls cannot be followed or people are not doing what they should.  No working in close proximity to people and in particular a person’s face, mouth and nose, for an extended period of time (the majority of the working day) is permitted unless the work is essential such as in clinical settings, like a hospital, or other close contact roles for example, Occupational Health clinical services where there is an activity specific risk assessment and PPE is provided for individuals undertaking this work.  PPE is provided for individuals working in clinical settings, like a hospital, or other close contact roles for example, Occupational Health clinical services and for first aiders. The taking of PPE home is not permitted.  Adequate training has been provided on what PPE is required i.e. gloves, masks, aprons, Filtering Face Pieces (P3), goggles, the correct donning/doffing of PPE and face fit testing. Government advice is followed:  <https://www.gov.uk/government/collections/coronavirus-covid-19-personal-protective-equipment-ppe>  <https://www.gov.uk/government/publications/covid-19-decontamination-in-non-healthcare-settings/covid-19-decontamination-in-non-healthcare-settings>  PHE quick guides for correct donning and doffing of PPE for [non-AGPs.](https://www.gov.uk/government/publications/covid-19-personal-protective-equipment-use-for-non-aerosol-generating-procedures) as well as for[AGPs](https://www.gov.uk/government/publications/covid-19-personal-protective-equipment-use-for-aerosol-generating-procedures) has been utilised for examples in best practice for putting on and taking off (donning and doffing).  Face coverings are not PPE and are not normally required to be worn in the workplace but the University strongly encourages staff, students, contractors and visitors to continue to wear face coverings inside buildings and where people choose to wear them they are supported.  Where face coverings may reduce the risk of transmission from one person to another e.g. in congested areas, crowded enclosed spaces and where people may come into contact with people they do not normally meet, signs are displayed requesting individuals to wear a face covering with the expectation that individuals will wear a face covering in these areas.  Individuals have been reminded through Staff and student briefing and on how to use face coverings safely including the following:  When wearing a face covering you should:   * wash your hands thoroughly with soap and water for 20 seconds or use hand sanitiser before putting a face covering on and before and after removing it * avoid wearing on your neck or forehead * avoid touching the face covering or your face, as it could contaminate it with germs from your hands * change the face covering if it becomes damp or if you’ve touched it * continue to wash your hands regularly * change or wash your face coverings daily * if the material is washable, wash it in line with manufacturer’s instructions. If it’s not washable, dispose of it carefully in their usual waste   Extra non recycling bins to dispose of single use face coverings and PPE are provided, refer to the [guidance on how to dispose of personal or business waste, including face coverings and PPE](https://www.gov.uk/guidance/coronavirus-covid-19-disposing-of-waste).  PPE consisting of face masks and/or a clear visor/shields that covers the face, and provides a barrier between the wearer and others, provided for staff working in close proximity to people and in particular a person’s face, mouth and nose, for an extended period of time (the majority of the working day). Re-usable visors are cleaned and sanitised regularly using normal cleaning products.   * Students using the labs will have been provided with personal lab coats and they are responsible for cleaning and location. * Staff will be assigned their personal lab coats will be laundered in the CTL on weekly basis. * Individuals (including staff, students, visitors and contractors), unless exempt, are strongly encourages by the University to wear face coverings, inside University buildings. Information provided in the University and local communications and local inductions and signs displayed informing people of the requirement to wear a face covering within the building. | 3 | 2 | 6 | Yes |  |  |  |  |  |  |  |
| Biological | Suspected or known case of COVID-19 | Staff Students and Visitors | Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19. | Response plan in place in the event of a confirmed or suspected case of COVID-19 and communicated and includes:   * If a person becomes unwell in the workplace with suspected COVID-19, they will be sent home in accordance to the University guidance. If any students appear unwell or make comment or complain to staff members that they are feeling unwell they will be asked to leave the building with immediate effect and to follow the University’s [Test, Trace and Protect Process](https://intranet.birmingham.ac.uk/staff/coronavirus/test-and-trace.aspx). * The area will be cleaned in accordance with the specific Government [guidance](https://www.gov.uk/government/publications/covid-19-decontamination-in-non-healthcare-settings/covid-19-decontamination-in-non-healthcare-settings) * Provision and monitoring of adequate supplies of cleaning materials are in place. * Team briefed in team meeting and followed up by an email immediately on actions to be taken in the event of someone being suspected of having COVID-19. * Staff must tell their line manager if they develop symptoms. Absence will be managed in accordance to the University guidance provided.   Employees to follow the Government advice: <https://www.gov.uk/guidance/nhs-test-and-trace-workplace-guidance>   * Line managers will maintain regular contact with staff members during this time, in accordance with the University sickness absence guidance and monitor for signs of symptoms in the remaining workforce and keep Senior Managers informed of the situation. * If an individual tests positive for COVID-19 this will be managed in accordance with the University’s [Test, Trace and Protect Process](https://intranet.birmingham.ac.uk/staff/coronavirus/test-and-trace.aspx). * If multiple cases of coronavirus appear in a workplace, an outbreak control team from either the local authority or Public Health England will, if necessary, be assigned to help the University manage the outbreak. The University will seek advice from the local authority in the first instance. * Individuals will be told to isolate because they:   + have coronavirus symptoms and are awaiting a test result   + have tested positive for coronavirus   + meet the criteria included in the [Government Stay at Home Guidance](https://www.gov.uk/government/publications/covid-19-stay-at-home-guidance/stay-at-home-guidance-for-households-with-possible-coronavirus-covid-19-infection) | 3 | 2 | 6 | Yes |  |  |  |  |  |  |  |
| Biological | Someone entering the workplace with COVID-19 | Staff Students and Visitors | Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19. | Companies who regularly attend or work in the building requested to provide their health and safety policy/arrangements / or RAMS (risk assessment and method statement) regarding COVID-19.  Anybody visiting site will be informed that they are not to enter if they’re experiencing COVID-19 symptoms or should be self-isolating under the government Guidelines.  If a person becomes unwell in a University workplace with suspected COVID-19, they will be sent home in accordance to their company’s and University’s guidance. University managers will follow the University’s [Test, Trace and Protect Process](https://intranet.birmingham.ac.uk/staff/coronavirus/test-and-trace.aspx) and NHS Test and Trace workplace guidance any University staff that may have come into contact with them: <https://www.gov.uk/guidance/nhs-test-and-trace-workplace-guidance> | 3 | 1 | 3 | Yes |  |  |  |  |  |  |  |
| Environmental | Virus transmission in the workplace | Staff Students and Visitors | Contact with an object that has been contaminated with COVID-19 and which subsequently transmits this to another person e.g. surfaces, any inanimate objects & touch points including work surfaces, work equipment, door handles, banisters, chair arms and floors. | Individuals have been instructed and are regularly reminded through signage and team briefings to clean their hands frequently with soap and water for 20 seconds and the importance of proper drying in accordance with the NHS Guidance:  <https://www.nhs.uk/live-well/healthy-body/best-way-to-wash-your-hands/>  Soap and water and hand sanitiser are provided in the workplace and adequate supplies are maintained and are placed at the entrance to the building and in other areas such as entry and exit to buildings and each teaching lab and welfare areas where they will be seen.  Individuals have been informed to check their skin for dryness and cracking and to inform their line manager or supervisor if there is a problem.  Individuals are reminded to catch coughs and sneezes in tissues – Follow: “Catch it, Bin it, Kill it” and to avoid touching face, eyes, nose or mouth with unclean hands. Posters are displayed around the workplace.  To help reduce the spread of coronavirus (COVID-19) individuals are reminded team briefings, 121 meeting with their line manager, All staff meetings and Internal communications via emailof the public health advice:  <https://www.gov.uk/government/publications/coronavirus-outbreak-faqs-what-you-can-and-cant-do/coronavirus-outbreak-faqs-what-you-can-and-cant-do>  A review of the cleaning regime for the building/area to ensure controls are in place to keep surfaces clean and free of contamination has been undertaken, cleaning products have been made available to all occupants and everyone has been briefed CTL induction and briefings on the importance of keeping surfaces and work equipment clean.  Clear use and cleaning guidance for toilets, showers, lockers and changing rooms are in place to ensure they’re kept clean and clear of personal items. This includes enhanced cleaning of all facilities regularly during the day and at the end of the day using normal cleaning products. Wipes are provided to clean all hard surfaces especially frequently hand touched surfaces, in showers and changing rooms and hand sanitiser is available on entry and exit to the room.  Facilities are kept well ventilated. For example, by ensuring any mechanical ventilation work effectively and opening windows and vents where possible.  Cleaning for busy areas in the building has been enhanced.  More waste facilities, and more frequent rubbish collection has been provided.  Sharing of equipment is restricted where possible and cleaned before and after use. Additional auxiliary lab equipment and lab resources and consumables have been purchased, and cleaned / disinfected before and after use.  Equipment and all touch points or surfaces that are touched regularly will be frequently cleaned and disinfected before and after use.  Specialist Lab Equipment will be frequently cleaned and disinfected before and after use , according to SOPs could be the use anti-viral wipes /70% Ethanol /diluted Virkon/ disinfectant with disposable cloths. These will be discarded in the autoclave waste bin having ensured sufficient time for the alcohol to evaporate.  Sterilising chemicals and cloths are provided in the area to clean machines and equipment prior to the commencement of work and upon completion. If machines and equipment are shared, sterilising will be carried out between operations.  CTL staff will use anti-viral wipes /70% Ethanol /diluted Virkon/ disinfectant with disposable cloths are provided to clean machines (such as printers) and equipment prior to use and upon completion. Laptops will be utilised and staff will be instructed bring in their laptops daily.  Staff will assess the compatibility of the Sterilising chemicals and cloths are provided to clean machines (such as printers) and equipment prior to use and upon completion.  Objects and surfaces that are touched regularly are cleaned frequently using use anti-viral wipes such as door handles and keyboards, and making sure there are adequate disposal arrangements.  Objects and surfaces that are touched regularly such as door handles and keyboards, are cleaned frequently using cleaning materials providedwhilst making sure there are adequate disposal arrangements.  Internal doors that **are not** signed as fire doors (unless held open with a mechanical device) kept open whilst working (last person out shuts the doors) to prevent multiple people using door handles.  Use of hot desks and spaces avoided and workstations/workspaces are assigned to specific individuals, where not possible e.g , training facilities and study spaces, workstations are cleaned by the users between different occupants including shared equipment.  There is a clear desk policy in place to reduce the amount of personal items on desks and work benches to be practiced when the space is in use or not in use. Work areas and equipment are cleaned between use using usual cleaning products.  There are cleaning procedures for goods and merchandise entering the site. Greater handwashing and handwashing facilities have been introduced for workers handling goods and merchandise and hand sanitiser provided where this is not practical.  Everyone is encouraged during team briefings and 121 meeting with their line manager to keep personal items clean including washing spectacles with soap and water, clean phones, keyboards and shared machinery handles etc. before after and during work.  More storage for workers provided for clothes and bags e.g. lockers and staff encouraged during team briefings and 121 meeting with their line manager to to use them.  Lab clothing and equipment such as goggles washed on-site rather than by individual staff members at home.  PPE consisting of face masks and/or a clear visor/shields that covers the face, and provides a barrier between the wearer and others, provided for staff working in close proximity to people and in particular a person’s face, mouth and nose, for an extended period of time (the majority of the working day). Re-usable visors are cleaned and sanitised regularly using normal cleaning products.   * Student will have been provided with personal lab coats in Sept 2021 and they are responsible for cleaning and location. * Staff will be assigned their personal lab coats will be laundered in the CTL on weekly basis.   Monitoring and supervision arrangements have been put in place to ensure people are following controls e.g. implementing the new cleaning regime, following hygiene procedures. The CTL Operation team will monitor and discuss work schedule on a weekly basis in the weekly Operations meeting to minimise the social contacts in the workplace. Staff are reminded via team briefing and informal discussions on a daily basis of the importance of reducing social contacts both in the workplace and outside of it. Schools’ Lecturers and demonstrators will monitor and supervise arrangements for the students  All university staff are encouraged to avoid direct personal contact with others i.e. shaking hands etc. | 3 | 2 | 6 | Yes |  |  |  |  |  |  |  |
| Organisational | Exposure to Existing Hazards | Staff Students and Visitors | Increased risk of harm due to controls included in existing risk assessments & safety arrangements affected by COVID-19 measures | All relevant pre-existing (non COVID) risk assessments including lone working assessments and procedures have been reviewed to take into account the impacts of COVID counter measures.  PPE related risk assessments have been reviewed to ensure that PPE is provided on an individual basis. Usage is monitored to ensure suitable level of stock of certain PPE such as face masks. Individuals maintain their own equipment in a sterile condition. Storage has been reviewed to provide individual storage arrangements. The taking of PPE home is not permitted.  Emergency Procedures reviewed and revised including:   * **Fire procedures:** number and details of nominated fire warden(s) in place, fire muster point confirmed and PEEP requirements defined including who will assist with their evacuation in an emergency. Required modifications to fire alarm practices and evacuation drills to cater for COVID-19 measures have been addressed; ensuring that the activity is still compliant with relevant building and fire codes. * **First Aid:** First aid needs assessment reviewed to take into account the impact of any Local or National Government requirements and any new Guidelines issued by the [University](https://intranet.birmingham.ac.uk/staff/coronavirus/faqs-for-staff.aspx) or [HSE](https://www.hse.gov.uk/), and first aid information including the location of first aid kits and first aider contact information up to date. * **Hygiene:** Washing facilities with soap/gel available People involved in the provision of assistance to others have been informed to pay particular attention to sanitation measures immediately afterwards including washing hands.   Safety critical roles will remain in place to aid safe operation. In the event of safety critical roles not being available then a dynamic risk assessment shall be performed by Mala Patel, Andrew McQueen, Indira Suresh, Aruna Mistry and Cheryl Powell to ensure measures are introduced to mitigate risk (for example, another area within the building or campus could have a critical role such as first aider that could cover as a temporary solution).  Security implications of changes made to operations and practices in response to COVID-19 Local or National Government requirements, have been considered.  Business continuity and disaster recovery plans updated based on COVID-19 implications including contingency plan in place for possible switch back to national or local lockdown.  Life-saving rules, will continue to be governed, enforced and communicated during COVID-19 especially during any Local or National Government lockdowns in particular “speaking up” if they witness any unsafe behaviours, conditions or symptoms related to COVID-19. | 3 | 2 | 6 | Yes |  |  |  |  |  |  |  |
| Environmental | Inbound & Outbound Goods including Post | Staff | Exposure to contact with an object that has been contaminated with COVID-19. | Logistics for the deliveries to the building has been considered and include:   * Pick-up and drop-off collection points, procedures, signage and markings revised. * Unnecessary contact at delivery bay has been minimised e.g. non-contact deliveries where the nature of the product allows for use of electronic pre-booking. * Methods to reduce frequency of deliveries in place - ordering larger quantities less often. * Where possible and safe, single workers load or unload vehicles or if not possible the same pairs of people, with additional mitigating measures including the wearing of face coverings, are used for loads where more than one is needed. * Electronic paperwork is used where possible, and procedures reviewed to enable safe exchange of paper copies where needed, for example, required transport documents. * Delivery and receipt confirmation made contactless and physical contact when handing goods over to the customer has been avoided. * Strict hand washing procedure in place after handling all deliveries. | 3 | 1 | 3 | Yes |  |  |  |  |  |  |  |
| Organisational | Travelling to work | Staff | Exposure to respiratory droplets carrying COVID-19. | Individuals travelling to University premises or on behalf of the University are encouraged to follow the [Government’s safer travel for passengers](https://www.gov.uk/guidance/coronavirus-covid-19-safer-travel-guidance-for-passengers#travel-safely-during-the-coronavirus-outbreak) to help them stay safe, and protect others by controlling the spread.  Where people are travelling together in any one vehicle, they are encouraged to:   * use fixed travel partners * not sit face-to-face * open windows and switch on ventilation systems that draw in fresh air. Open windows only partially if it’s cold. * frequently clean their vehicle including objects and surfaces that are touched regularly, such as door handles and vehicle keys. | 3 | 2 | 6 | Yes |  |  |  |  |  |  |  |
| Organisational | Driving at work | Staff | Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19. | Staff roles that are required to car share have been considered and whether this could continue. Alternative solutions to two-person delivery have been put in place, for example, mechanical / material handling equipment.  Where these are not possible the number of people travelling together in any one vehicle is minimised, using fixed travel partners, vehicles [are well ventilated via open windows](https://www.hse.gov.uk/coronavirus/equipment-and-machinery/air-conditioning-and-ventilation/ventilation-in-vehicles.htm) (windows are only partially opened if it’s cold) and with ventilation systems switched on so that fresh air is drawn in and occupants sit side by side or behind other people and sitting face-to-face is avoided. Seating arrangements to maximise distance between people in the vehicle has been considered.  Shared vehicles are frequently cleaned by occupants/vehicle users including between shifts or on handover. This includes cleaning of objects and surfaces that are touched regularly, such as door handles and vehicle keys, and adequate disposal arrangements are in place.  Sufficient quantities of hand sanitiser /wipes are retained within vehicles to enable workers to clean hands after each delivery / drop-off.  Staff are encouraged to wash hands before boarding vehicles. | 3 | 2 | 6 | Yes |  |  |  |  |  |  |  |
| Environmental | Ventilation | Staff Students and Visitors | Exposure to respiratory droplets carrying COVID-19. | Ventilation systems are maintained in line with planned and preventative maintenance schedules, including filter changes.  In the lab areas, recirculating air is not used. The extraction airflow is more than sufficient.  In non- lab areas, like the informal spaces and staff areas, recirculating air is used. Unfortunately, the recirculation of unfiltered air cannot be disabled as the ventilation system is linked to the Local Exhaust Ventilation operations and would lead to unstable system and a consider drop in the temperature of the building.  An assessment of the ventilation in the building, and where necessary individual areas/rooms, has been undertaken which included checks such as:   * Is the space naturally or mechanically ventilated * All areas within the building which are usually occupied and have poor ventilation have been identified and the use of the area re-assessed (see below). * An assessment of Fresh air (ventilation) has been undertaken for the workplace and where necessary individual workspaces. This included how fresh air is provided (natural, mechanical or combination of both), how many people occupy/use the area, how much time people spend in the areas, how large the area is, what activities take place in the areas, the equipment and machinery in the workspaces, the use of fans and Local Exhaust Ventilation.   Recirculation of unfiltered air within the workplace has been avoided or reduced as far as possible. While this will continue to be minimised some area will need to have some recirculation, to improve thermal comfort.  Natural ventilation can be improved by fully or partially opening windows, air vents and doors, not signed as fire doors. This should be balanced against the need to maintain comfortable temperatures for all users of the space.  The University will be centrally monitoring carbon dioxide (CO2) as a proxy for air quality and ventilation in large teaching spaces. Information can be provided on these spaces.  Additional control can be provided via the use of portable CO2 sensors where there are any concerns raised about the adequacy of ventilation in a given space.  Rooms can be purged (aired) when not in use by leaving the windows and doors fully open. However, it is important to plan and close windows to minimise the risk of rodent and pigeon issues.  Mechanical ventilation has typically been set at maximum fresh air settings and operate 24/7 and that the plant running as commissioned due to the complex system; no additional strategy changes could be applied.  Staff have been informed, via this risk assessment of the following steps which they can take to make sure their workplace is adequately ventilated whilst maintaining a comfortable temperature:   * opening windows and doors partially can still provide acceptable ventilation while keeping the workplace comfortable. Opening higher-level windows will probably create fewer draughts. * if the area is cold relax dress codes so people can wear extra layers and warmer clothing * use natural ventilation alongside heating systems to maintain a reasonable temperature in the workplace.   Ventilation Instruction signs displayed throughout the building instructing individuals to “Please ensure you open all windows on arrival and close on departure.”  Most mechanical ventilation systems are monitored by building management systems that will raise a fault alarm; but please ensure that any potential fault with mechanical or natural ventilation is raised with the Building Management and or the Estates Helpdesk.  General considerations reflected on during reopening of the buildings in relation to the ventilation and fresh air to occupied spaces. Core strategy based on [CIBSE Covid-19 Ventilation Guidance](https://www.cibse.org/coronavirus-covid-19/emerging-from-lockdown), [HSE guidance](https://www.gov.uk/government/publications/higher-education-reopening-buildings-and-campuses/higher-education-covid-19-operational-guidance), [Government](https://www.gov.uk/government/publications/higher-education-reopening-buildings-and-campuses/higher-education-covid-19-operational-guidance) and other relevant industry guidance. The guidance is constantly under review by the University’s Estates, as SARS-CoV2 transmission routes become more clearly defined, and any updated recommendations assessed and implemented where relevant to University systems.  Links used above:  HSE - Ventilation and air conditioning during the coronavirus (COVID-19) pandemic 21st July 2021  <https://www.hse.gov.uk/coronavirus/equipment-and-machinery/air-conditioning-and-ventilation/index.htm>  CIBSE - COVID-19: Ventilation version 5 - Updated 16th July 2021  <https://www.cibse.org/coronavirus-covid-19/emerging-from-lockdown>  DfE - Higher education COVID-19 operational guidance - Updated 19 July 2021  <https://www.gov.uk/government/publications/higher-education-reopening-buildings-and-campuses/higher-education-covid-19-operational-guidance>  HSE - Keeping workplaces safe as coronavirus (COVID-19) restrictions are removed - Updated 19 July 2021  <https://www.hse.gov.uk/coronavirus/roadmap-further-guidance.htm> | 4 | 2 | 8 | YES |  |  |  |  |  |  |  |
| Mechanical | Machinery & Equipment | Staff Students and Visitors | Exposure to respiratory droplets carrying and contact with an object that has been contaminated with COVID-19. | Equipment and surfaces that are touched regularly will be frequently cleaned and disinfected.  Sterilising chemicals and cloths are provided in the area to clean machines and equipment prior to the commencement of work and upon completion. If machines and equipment are shared, sterilising will be carried out between operations by the user. | 3 | 2 | 6 | Yes |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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**Risk Assessment Guidance**

Risk Scoring System

The scoring system is provided as a tool to help structure thinking about assessments and to provide a framework for identifying which are the most serious risks and why.

|  | **Consequence / Severity score (severity levels) and examples of descriptors** | | | | |
| --- | --- | --- | --- | --- | --- |
|  | **1** | **2** | **3** | **4** | **5** |
| **Domains** | **Negligible** | **Minor** | **Moderate** | **Major** | **Catastrophic** |
| **Impact on the safety of staff, students or public (physical / psychological harm)** | Minimal injury not requiring first aid or requiring no/minimal intervention or treatment.  No time off work | Minor injury or illness, first aid treatment needed or requiring minor intervention.  Requiring time off work for <3 days | Moderate injury requiring professional intervention  Requiring time off work for 4-14 days  RIDDOR / MHRA / agency reportable incident | Major injury leading to long-term incapacity/ disability (loss of limb)  Requiring time off work for >14 days | Incident leading to death  Multiple permanent injuries or irreversible health effects |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Likelihood score** | **1** | **2** | **3** | **4** | **5** |
| **Frequency** | **Rare** | **Unlikely** | **Possible** | **Likely** | **Almost certain** |
| **Broad descriptor** | This will probably never happen/occur | Do not expect it to happen/occur but it is possible it may do so | Might happen or occur occasionally | Will probably happen/occur but it is not a persisting issue | Will undoubtedly happen/occur, possibly frequently |
| **Time-framed descriptor** | Not expected to occur  for years | Expected to occur  at least annually | Expected to occur at  least monthly | Expected to occur at least weekly | Expected to occur at least daily |
| **Probability**  Will it happen or not? | <0.1 per cent | 0.1–1 per cent | 1.1–10 per cent | 11–50 per cent | >50 per cent |

The overall ***level of risk*** is then calculated by multiplying the two scores together.

**Risk Level = Consequence / Severity x Likelihood (C x L)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Likelihood** | | | | |
| **Likelihood score** | **1** | **2** | **3** | **4** | **5** |
|  | **Rare** | **Unlikely** | **Possible** | **Likely** | **Almost certain** |
| **5 Catastrophic** | 5 | 10 | 15 | 20 | 25 |
| **4 Major** | 4 | 8 | 12 | 16 | 20 |
| **3 Moderate** | 3 | 6 | 9 | 12 | 15 |
| **2 Minor** | 2 | 4 | 6 | 8 | 10 |
| **1 Negligible** | 1 | 2 | 3 | 4 | 5 |

The Initial Risk Rating is the level of risk before control measures have been applied or with current control measures in place.

The Residual Risk is the level of risk after further control measures are put in place.