

XRD (Pananalytical and Rigaku) and SEM Usage Procedures (Room 0B.410) [v.2]

In order to facilitate multiple users from various groups accessing one (1) communal space, several social distancing and health and safety measures have been implemented. Please adhere to the following protocols to facilitate the additional usage;

1. All Users must have familiarized themselves with the CCE COVID-19 Return to Work Guide (<http://go.qub.ac.uk/CCEReturnToWork>).
2. All Users must have read the XRD-SEM Risk Assessment (available on Microsoft Teams, under the “*Technical Services Risk Assessments*” folder in the Files section of the “*CCE Phased Lab return*” Team) and signed/confirmed their understanding of the new conditions by emailing affirmation to the Lead Analytical Technician (a.brownlie@qub.ac.uk) prior to using the facility.
3. Once confirmation of the above has been received, you will then have access to the online booking calendar on Bookkit via Clustermarket, where you will be able to reserve the XRD and SEM instruments.
4. Time allocation is as follows:
 - a. You can use the SEM and/or XRD once per day, for a maximum of two (2) hours per instrument. Any time on the instrument(s) cannot be split into multiple daily sessions.
 - b. Each research group will have a maximum availability of eight (8) hours use per instrument per week. It is your responsibility to liaise with your colleagues to ensure fair usage of the equipment.
 - c. Please keep the number of users within a research group to a minimum to avoid unnecessary exposure to rooms with a high throughput of people.
 - d. Authorised users will operate to their allocated work schedule and/or booking timetable. Please allow adequate time to clean the facility in any booking (recommended ten (10) minutes pre- and post-use).
5. Only one (1) XRD instrument can be used at a time.
 - a. If the Pananalytical XRD is booked the Rigaku XRD cannot be booked at the same time.
 - b. If there is an issue with the instrumentation **DO NOT** attempt to restart/reboot the computer or instrument. Please email the Lead Analytical Technician (a.brownlie@qub.ac.uk) and Cc the Head of Technical Services (D.Baskerville@qub.ac.uk), explaining any error messages, ‘accidents’ or issues.
 - c. If the instrument is out of action, we will try to arrange a suitable alternative.
6. Only those fully trained on the instrument(s) will be permitted use of the equipment.
7. Once fully trained you will be given the secure key code to access the key for entrance to the room. You will also be given access to the XRD/ SEM online booking calendars.
8. There will be a maximum of two (2) people allowed in the room at any time, ensuring social distancing measures are maintained.
9. There will be no access to the XRD/SEM suite whilst technical staff are in the room, whether they are there for routine maintenance or to repair the instrument and/or computer. This may result in you having to reschedule your booking.
 - a. All communication and interaction with technical staff will be via email or telephone.
 - b. Face-to-face meetings will only be permitted in exceptional circumstances, by appointment only and conducted whilst observing strict social distancing measures.
10. Before accessing the XRD/SEM suite, you will have washed your hands with soap for at least twenty (20) seconds and dried them as per government guidelines.
11. For access to use the SEM you must only enter and exit through the right-hand door.
12. For access to use the XRD (both Pananalytical and Rigaku) you must only enter and exit through the left-hand door.
13. The room and equipment will be cleaned by the User before and after any use of the facilities with either antibacterial spray (that kills 99.9% of all viruses) or wipes (with >60% alcohol) and dried using disposable towels. If there are insufficient cleaning supplies in the room, you will be responsible for bringing your own spray/wipes and roll or to obtain stock from Stores. The clean will include but will not be limited to;
 - a. The XRD/SEM room key.
 - b. The exterior and interior door handles.
 - c. Light switch (subject to need).

- d. The computer desk and worktop area.
 - e. The computer chair(s).
 - f. The computer, comprising the mouse, keyboard and screen.
 - g. The sample preparation area (XRD only) and all associated sample holders.
 - h. The protective shielding doors on the XRD instruments.
 - i. The lid of the water chiller unit and beaker used to fill it (subject to need).
 - j. The gold sputter equipment and argon regulator, if used with the SEM.
 - k. The handle of the SEM sample chamber. **Note:** This should be done when the chamber is sealed and under vacuum to avoid any contamination of the internal chamber. Either wipe with an antibacterial wipe or spray antibacterial spray directly onto paper roll. **DO NOT SPRAY DIRECTLY INTO THE SEM.**
14. Users are to bring prepared sample(s) ready for analysis to the SEM Room. There will be no sample preparation done in for SEM analysis in the room.
 15. If you intend to use the gold sputter whilst someone else is using the XRD, please make sure you adhere to the recommended social distancing guidance. If this is not possible you must ask the XRD user to vacate the room momentarily or move to a safe position before proceeding.
 16. Users will not touch/handle any area or item in the room unless it is necessary. All items/areas handled will be cleaned as above, before and after use.
 17. On completion of your work you will clean down the room after use, to include but not limited to the list mentioned in Section 13 that is appropriate for the instrument you are using. This will be done every time you leave the room, even if you plan on returning later the same day, as technical staff may need access before you return or you may not get a chance to return before the room is accessed by a different user.
 18. There will be no open access or casual calls into the XRD/SEM Suite; access will be by appointment only. It is your responsibility to report anyone inappropriately using or accessing the facility.
 19. There is no access beyond the marked area to the instrumentation, computer or desks on the opposite side of the room.
 20. On returning the XRD/SEM key to the secure key facility located in ASEP, you must wipe down both the key and the keylock box.
 21. After leaving the XRD/SEM Room, you will wash your hands with soap for at least twenty (20) seconds and dry them as per government guidelines.

This list is not exhaustive and may be updated as the practicalities of multiple user groups accessing a communal area, especially without daily supervision, come into force. Ultimately it is your responsibility to follow the relevant health and safety guidelines and comply with social distancing measures, as per the UK government guidelines. Please report any issues to Head of Safety (Jackie.Oconnor@qub.ac.uk), Head of Technical Services (D.Baskerville@qub.ac.uk) and Lead Analytical Technician (a.brownlie@qub.ac.uk).

There are NO exceptions to the above measures. There will be severe repercussions for anyone failing to follow these rules or found in breach of these conditions, not to mention your rights and privileges to use the equipment will be revoked. These measures are for your own safety and to ensure a safe working environment for our staff during these unprecedented times.

Your compliance and adaption to the new working procedures is greatly appreciated.

D. Baskerville

Mr. D. Baskerville, Head of Technical Services

24th of July 2020