Draft Code of practice and risk assessment related to Covid-19 transmission and infection risks to apply when working in different environments in the School of Engineering, during the Scottish Government's Phase 2 stage of easing work and movement restrictions.

The background to the Scottish Government's guidelines and instructions can be found on these webpages:

https://www.gov.scot/collections/coronavirus-covid-19-guidance/

https://www.gov.scot/publications/coronavirus-covid-19-framework-decision-making-scotlands-route-map-through-out-crisis/pages/1/

additional information is also given here:

https://www.hse.gov.uk/news/assets/docs/working-safely-guide.pdf

https://www.gla.ac.uk/myglasgow/seps/

In brief, during the easing in Phase 1, workplaces resuming in the following phases are encouraged to undertake preparatory work on physical distancing and hygiene measures.

Within the School of Engineering, the principle types of working environment include:

Shared office space (for administration, technical, research, PhD, PGR and UGT and academic personnel)
Single occupancy rooms for the above
Experimental research laboratory areas
Teaching laboratory areas
Workshops (electrical and mechanical)
Communal areas (toilets, coffee rooms, meeting rooms etc)

Although working in each of these areas may involve slightly different protocols, the underlying guidance to be observed through this Code of Practice is that of people remaining and working at a physical distance of at least 2 metres apart, as per the Scottish and UK government guidelines.

The risks associated with working within any of the School of Engineering buildings during the Covid-19 pandemic can be summarised as follows:

Transmission of Covid-19 to other persons
Covid-19 infection
Reduced availability of first aid support in the event of accidents associated with normal working practices occurring

The persons affected by any of these risks include all those who enter the buildings, e.g. Staff (janitorial, cleaning, academic, research, technical and administration), Students (PGR, PGT, UGT), visitors, delivery drivers, external contractors. All should observe the protocols outlined below.

The degree to which people will be harmed through Covid-19 infection varies greatly from person to person in a way that cannot be predicted with certainty. Thus the harm is best classified as having a serious impact on respiratory functions with an ensuing possibility additional medical complications.

It is therefore essential for people not to attend work if they suspect they may be infected with Covid-19 nor if they have one of the specific medical conditions identified in the Scottish government Covid-19 guidance documents.

A description of each of these risks and potential mitigation is as follows:

Risk: Transmission of Covid 19

Transmission of Covid-19 is generally accepted to be via either air transmission of exhaled viral particles or by contact transmission involving an infected person (who may be asymptomatic) inadvertently transferring the virus from themselves to an object that is then touched in some manner by another person. It is therefore essential for people not to attend work if they suspect they may be infected with Covid-19.

The risk of this happening is related to the community prevalence of Covid-19 as well as working practices and the duration which people may be in close proximity to each other.

At the time of writing (24 May 2020), estimates of the community prevalence are difficult to make, but based on the numbers of new cases being diagnosed and large cohort tests (e.g. of sports personnel), are likely to be in the range of 1 in several hundred people. Thus, whilst the risk of there being no-one entering the building who has Covid-19 might not be thought to be large, if the prevalence is 1 in 500, and 80 people enter the building, the probability that at least one of those people will carry Covid-19 is 1-0.998^80 = ~15% (assuming that all the people are present in the buildings during the same time period).

Controlling the Risk:

Since encounters that are closer than the recommended 2 m will inevitably occur in some situations (corridors, stairs, communal rooms and labs etc.) the first mitigation strategy to reduce the chances of transmission is to restrict the numbers of people in the buildings both overall, and in particular areas or groups of laboratories. This can best be achieved by people attending the buildings, doing so according to a pre-arranged rota or schedule at various points during the day. Note, it will also be necessary to restrict toilet areas to be single occupancy (appropriate signage should be put up); likewise communal the occupancy of rest areas should be restricted and rest breaks staggered.

Action required: Administrative, Technical, Academic and Laboratory Responsibles/Guardians to co-ordinate numbers of people working in particular areas and at particular times with the School Safety Co-ordinator. These numbers (not names) should be available on a School website to enable people to plan their working arrangements.

1) The second mitigation strategy involves ensuring that people are able to work at least 2 m apart. This requirement should take into account the inevitable movement around a room of people working within it. For example, whilst it might be possible to delineate workstations that are 2 m apart, typically, people will not remain static in that place for several hours at a time. Thus, this should be taken into account when assessing the acceptable person loading of a room at any given time. For some activities such as those associated with some of the workshops and administration, it may be possible to utilise nearby rooms that are unused as a consequence of there being no undergraduate teaching activities taking place. Note these rooms can also be used as ‘rest areas’ where necessary.

Action required: Administrative, Technical, Academic and Laboratory Responsibles/Guardians to determine the numbers of people able to work in particular rooms according to the above guidelines at any one time, and agree this with the Safety Co-ordinator. This agreed number should be posted on the door of the room. It will also be necessary to restrict toilet areas to be single occupancy (appropriate signage should be put up); likewise communal the occupancy of rest areas should be restricted and rest breaks staggered.

2) The third transmission mitigation strategy relates to contact transfer. This contact transfer primarily arises though infected people touching things (door handles, office furniture, benches, equipment etc.), or through them inadvertently coughing/sneezing/breathing on things. Here the mitigation strategy involves frequent washing of hands (preferably with soap and water, but with 70% alcohol gel or wipes if this is not readily available). People should wash their hands if they have coughed or sneezed into them, or have rubbed their face/eyes with them. People should also wash their hands before handling pieces of equipment/instrumentation/computers (particularly communal ones). To be effective, washing of hands or wiping equipment should be carried out thoroughly over at least 20 seconds, and if using wipes, it is important that these have not become dry before use (through being left in an open packet that allows the alcohol to evaporate – the strong smell of alcohol should be apparent).

   Action required: Administrative, Technical, Academic and Laboratory Responsibles/Guardians to determine what hand washing and wipe down provisions are currently available and additional ones that should be supplied, and pass this information to the Safety Co-ordinator so that this can be provided.

3) The fourth transmission mitigation strategy involves the wearing of non-surgical face coverings. At present, during the current lock-down phase, and probably during Phase 1 above, the Scottish government's recommendation is that people should wear non-surgical face coverings when travelling on public transport and shopping in shops where it is likely they will come into contact closer than 2 m with other people, albeit transiently. As indicated above, it is highly likely that during the normal course of events people will come into closer proximity to one another, albeit transiently. This will occur in areas both designed to allow 2 m working distance between people, and communal spaces such as corridors, stairs etc.
   When waiting for lifts (which should be single occupancy only) people should stand back from the doors so that the occupants don't walk into them when leaving the lift.
   Finally, to reduce the potential excessive exhalation of viral particles, people should avoid extended (and heated) conversations when working in confined areas or in relatively close proximity.

   Action required: The School/University should provide disposable non-surgical face coverings rather than rely on individuals providing ones that may not be effective or regularly cleaned.

Risk: Infection with Covid-19

As indicated above, the primary routes by which someone becomes infected are through contact with exhaled viral particles, or through touching contaminated surfaces and then touching ones face. The 'entry' points for the virus are generally accepted to be the nose, mouth and eyes or skin lesions. Many of the transmission mitigation strategies outlined also result in a means to mitigate the chances of being infected with Covid-19.

Controlling the Risk:

1) Restrict both the amount of time you have to be in the School buildings and take suitable precautions when travelling to the workplace. For example, if travelling on public transport, travel at times when it is not busy and/or walk/cycle to work (driving by car may be limited due to the availability of parking spaces in the vicinity of the buildings).

   Action required: Administrative, Technical and Academic line managers/supervisors to determine the extent to which people need to attend the School buildings, rather than working from home, taking into account building occupancy, absolute need to be in the building to perform work tasks, and the need to be in the building (possibly on a rota basis), to alleviate problems that may be associated with working in isolation from home.

2) Physical distancing of at least 2 m between work stations, as in point 2 above.
3) Contact transfer, as with point 3 above, ensure frequent washing of hands and cleaning of surfaces and equipment/instruments before use with 70% alcohol wipes or sprays. Particular care should be taken to avoid touching ones face with hands that have not been washed.

   Action required: Extensive provision of hand washing stations and sprays/wipes with which to clean equipment/instrumentation.

Risk: Reduced availability of First Aid support

With a reduction in the number of people working in the School buildings there will similarly be a reduction in the number of First Aiders present. Although the Security and Janitorial personnel are often trained first aiders, they should not be relied on as the sole means of support.

Controlling the Risk:

People should take more care than usual to avoid accidents that might result in either minor or major injuries, and in the context of working in experimental research labs where there will be fewer people around, people should not undertake activities that might lead to major or minor injuries without ensuring that there are other people within hailing distance, or able to check up on them regularly.

Action required: Administrative, Technical and Academic line managers/supervisors and Laboratory Responsibles/Guardians to review with personnel which work can be safely undertaken with reduced access to First Aid support.