Experiment Statistics

Goal: To find Covid-19 infection hot spots and how it will spread

* Average probability of getting sick (per room or all rooms) Could be average taken over 24 hours or smaller intervals. Could be recorded as if all people are not engaging in behaviour that limits the spread of Covid-19, the opposite, an equal mix, or a random mix.
* Average occupancy to room size ratio (per room) Could be compared to average probability of getting sick to determine degree of correlation
* Occupancy histogram over 24 hours with half hour intervals (per room) Could determine busiest times
* Average probability of getting sick histogram over 24 hours with half-hour intervals (per room) Could determine times of greatest infection risk. Could determine degree of correlation with occupancy histogram
* Average probability of getting sick vs ventilation rate (all rooms) Could determine degree of correlation
* Probability of a room having a high probability of getting sick when it is adjacent to a room with a high probability of getting sick. This would require multiple experiments. But would help determine how likely Covid-19 is to spread based on proximity.
* Number of students travelling at same time. Could determine how dangerous hallways and tunnels are based on potential crowd sizes.
* Frequency of large numbers of students travelling at same time. For example: If many classes empty at the same time, or if lecture times are staggered to reduce crowd sizes in hallways.