## Biological Safety Level (BSL) is a biocontainment designation system with requirements intended to protect personnel from potentially harmful pathogenic exposure in a research environment.

| Designation | Description   | Laboratory Requirements   |
|-------------|---|---|
| BSL-1       | Required in the presence of microbes that do not consistently cause disease, such as E. coli.   | Work can be done on an open bench and minimal PPE is required. Doors separate BSL-1 lab from rest of the facility.  |
| BSL-2       | Required in the presence of moderately hazardous microbes, such as S. aureus, or blood, cell lines, or tissue cultures of human and primate origin including all mammalian tumor cells. | The lab is restricted behind self-closing doors. Personnel wear miminal PPE. Many operations are performed within biological safety cabinets.   |
| BSL-3       | Required in the presence of potentially lethal, often "exotic" airborne microbes, such as tuberculosis.   | The lab is restricted behind two sets of doors. Works may require immunizations and PPE plus respirators are advised. All work is performed within a biological safety cabinet. Filtered room air must be exhausted |
| BSL-4       | Required in the presence of high risk of airborne transmission; infections are frequently fatal, as from Ebola.   | Decontaminate all material before exiting lab; show after exiting. Full body, positive-pressure clearnroom suit. All work is performed in a Class III biological safety cabinet. Lab is in a separate building.     |