

Laboratory Safety Design Standards for Plumbing and Ventilation

The following are the University's general plumbing and ventilation design standards for laboratories.

All laboratory renovations, modifications or repurposing must be reviewed and approved by Environmental Health and Safety Service and Campus Planning, Design and Construction.

	Description	HVAC Requirements				Plumbing Requirements		
		Negative to Hallway	Captured Exhaust – no recirculation	Exhausted via lab exhaust system	Fume hood(s)	Sink (tied to lab waste-water system)	Eye wash	Emergency Shower
Heavy Wet Lab	<ul style="list-style-type: none"> Chemical use requiring fume hoods with an approximate capacity of 1 hood per 150 – 300 SF 	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wet Lab	<ul style="list-style-type: none"> Chemical use requiring fume hood(s) with an approximate capacity of 1 hood per 600 SF or more 	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Damp Lab	<ul style="list-style-type: none"> Chemical use not requiring fume hood Toxic/flammable compressed gases BSL1 / BSL2 use (unless chemicals use requires fume hood)* Radioactive material use - open sources (unless chemical use requires fume hood)* 	Yes	Yes	Yes	No	Yes	Yes	Maybe
Dry Lab with Ventilation	<ul style="list-style-type: none"> No chemical use (other than incidental) Cryogenic/non-toxic compressed gases equipment/operations generating odors or contaminants Equipment requiring point source exhaust for contaminate, heat, etc. control Soldering/welding/cutting/grinding Laser cutters/3D printers Equipment operating with natural gas Radioactive Materials – sealed sources 	Yes	Yes	No	No	Yes	Yes	No
Dry Lab without ventilation	<ul style="list-style-type: none"> Equipment not requiring exhaust ventilation (i.e. microscopes, lasers, x-rays)* Activities involving no chemical and no other hazardous material use/storage 	No	No	No	No	No	No	No
Computational Lab	<ul style="list-style-type: none"> Computer labs Theory labs Graduation student workspaces 			No	No	No	No	No

*Radioactive material, x-ray equipment, laser and biological material use labs have their own lab design standards that must also be met.