

## Revised Demerit Points System 2019

		Points per violation	No. of violations	Points deducted
	<b>Item</b>			
<b>1.</b>	<b>PPE and Attire (Applicable for those in the lab working past the marked PPE line)</b>			
1.1	Not wearing eye-protection such as safety glasses/goggles/face shield. (Warning letters will be given to the student).	30		
	<ul style="list-style-type: none"> <li>Safety glasses must be worn in areas of the lab where there is higher chance of being exposed to the chemicals in case of a splash. Light warning will be given if the student is only conducting work not involving chemicals.</li> </ul>			
1.2	Not wearing lab coat. (Warning letters will be given to the student).	30		
	<ul style="list-style-type: none"> <li>Lab coats must be worn in all areas of the lab. Lab coats should be stored in a designated area before coming into the lab.</li> </ul>			
1.3	Improper footwear or clothing that do not cover the skin of the legs and feet.	20		
	<ul style="list-style-type: none"> <li>Footwear must be able to cover all areas of the foot to minimize injury in case of a chemical spill or glass breakage.</li> </ul>			
1.4	Not removing gloves before making contact in common areas. (lifts, toilets, corridor door handles)	20		
	<ul style="list-style-type: none"> <li>Gloves shall not be worn to touch panels/handles or public areas such as lift buttons, door handles, railings etc.</li> </ul>			
1.5	Rude/Uncooperative behavior of staff/students.	Reminders only		
	<ul style="list-style-type: none"> <li>Staff or students who show rude and uncooperative behavior to safety personnel will be given a warning. Further exhibition of such behavior will result in demerit points.</li> </ul>			
1.6	Not storing of PPE in their appropriate areas.	Reminders only		
	<ul style="list-style-type: none"> <li>PPE such as gloves, lab coats should not be stored indiscriminately in the lab to minimize contamination onto the PPE as well as to the area affected.</li> </ul>			

2.	Chemical and Waste Chemical Management			
2.1	Storing chemical bottles on the floor (excluding bottles of waste solvent from HPLC and other such equipment that have secondary containment).	30		
	<ul style="list-style-type: none"> <li>Chemical bottles should not be placed on the floor if not empty. Bottles on the floor are a tripping hazard and should be put into a chemical trolley or into their respective chemical cabinets.</li> </ul>			
2.2	Exceeding Maximum Allowable Quantity (MAQ) of Petroleum and Flammable Materials (PFM) in the lab.	30		
	<ul style="list-style-type: none"> <li>90% of the labs MAQ are to be stored in the flammable cabinets and 10% is allowed on the lab benches or fume hoods.</li> </ul>			
2.3	No secondary containment for waste carboys or chemical bottles exceeding 1 Liter.	20		
	<ul style="list-style-type: none"> <li>All waste carboys or chemical bottles exceeding 1 L in volume must be placed in secondary containment. Secondary containers must not be made of readily combustible material and not be porous.</li> </ul>			
2.4	Incompatible chemicals stored together.	5		
	<ul style="list-style-type: none"> <li>Chemicals that are incompatible cannot be stored in the same cabinet. If there is no other option, incompatible chemicals must be in separate containers. Example, Hydrogen Peroxide (an oxidizer) cannot be stored with Methanol (a flammable liquid) See more examples in Dept. of Chemistry Safety Manual pg. 34-36.</li> </ul>			
2.5	Oxidizing Acids not stored in separate containers to other acids.	5		
	<ul style="list-style-type: none"> <li>Acids such as Nitric Acid or Perchloric Acid should be stored in a separate container from other Acids.</li> </ul>			
2.6	Not labelling of waste carboys with type of waste/date generated/name of wastes generated.	5		
	<ul style="list-style-type: none"> <li>Chemical waste carboys must be labeled with the names of the waste such as name solvent, corrosives silica gel or spent oil. The date of generation must also be written on the waste carboy.</li> </ul>			
2.7	Chemical bottles/flasks not labelled with name and GHS hazard symbol.	Reminders only		
	<ul style="list-style-type: none"> <li>All bottles of chemicals must be labelled with the full name of the chemical and the appropriate GHS symbol.</li> </ul>			

<b>3</b>	<b>Chemical Inventory</b>			
3.1	Chemical barcode system not in use.	10		
	<ul style="list-style-type: none"> <li>Quantities of chemicals in the lab and store room must be kept up to date by using the barcode scanner software. Safety Officers will check the inventory of each lab periodically to see if chemical usage has been updated.</li> </ul>			
<b>4.</b>	<b>Fire Safety</b>			
4.1	Obstructed Fire Extinguisher.	Reminders only		
	<ul style="list-style-type: none"> <li>Fire extinguishers must always be accessible and not permanently obstructed by equipment, lab coats etc. etc.</li> </ul>			
4.2	Obstructed Fire Fighting Access Panel/ Exit Doors (obstructed by Chemical bottles/heavy equipment/harmful objects).	Reminders only		
	<ul style="list-style-type: none"> <li>Fire Fighting access panels and Exit doors must always be kept clear so that entry and egress is deemed safe for Fire Fighting personnel as well as Occupants.</li> </ul>			
4.3	Excess of combustible materials in the lab.	Reminders only		
	<ul style="list-style-type: none"> <li>Cardboard, papers, catalogues must be kept to a minimum in the laboratory. Combustibles must be kept clear of sprinklers as well.</li> </ul>			
<b>5.</b>	<b>Electrical Safety</b>			
5.1	Electrical cords adaptors plugs in poor condition. (Frayed cables. Extension cords with burn marks, )	Reminders only		
	<ul style="list-style-type: none"> <li>All electrical cords including extension cords must be in good condition. There should not be burn marks, frayed cables, loose connections that will compromise the safety of the electrical item.</li> </ul>			
5.2	Usage of unapproved travel adapters. Electrical plugs used inappropriately.	Reminders only		
	<ul style="list-style-type: none"> <li>Wherever possible, plugs must be converted to Singapore standard. If an adapter must be used ensure the adapter conforms to British Standard or CE standard. See appendix for different types of plugs.</li> </ul>			

6.	Lab Safety			
6.1	Not conducting a Risk Assessment for activities	50		
	– All activities of hazardous nature in the laboratory must be accompanied by a Risk Assessment (signed by P.I.)			
6.2	Not conducting a simple Lab Book Risk Assessment.	10		
	<ul style="list-style-type: none"> <li>A brief Risk Assessment should also be written on the lab research book. The risk assessment should at least note the chemical reaction (if applicable), hazards, temperatures, pressures, method of disposal.</li> </ul>			
6.3	Fume hood sash not lowered when left unattended (suggested that each lab have each fume hood labelled with the name of the student using it).	10		
	<ul style="list-style-type: none"> <li>The sash of the fume hood must be lowered as much as possible if the fume hood is left unattended. If a person is using the fume hood, the sash must at least be below the persons face level.</li> </ul>			
6.4	Poor house keeping in the lab	10		
	<ul style="list-style-type: none"> <li>Equipment, glassware, electrical cables, rubbish etc. found on the floor and poorly managed. Cluttered fume hoods leaving very little clean space. Unsecured gas cylinders, gas cylinders found on trolleys. Cluttered benches and worktops. Unnecessary empty boxes.</li> </ul>			
6.5	Gas cylinders not chained and secured individually.	Reminders only		
	<ul style="list-style-type: none"> <li>Gas cylinders must be chained and secured individually.</li> </ul>			
6.6	Emergency eye-wash not inspected on time.	Reminders only		
	<ul style="list-style-type: none"> <li>Emergency eye-wash should be inspected at least once per week.</li> </ul>			
6.7	Emergency showers not inspected on time.	Reminders only		
	<ul style="list-style-type: none"> <li>Emergency showers should be inspected at least once per month.</li> </ul>			

6.	Lab Safety			
6.8	Obstructed Eyewash/Shower.	Reminders only		
	<ul style="list-style-type: none"> <li>Items should not be placed that under the emergency shower and items should not obstruct an emergency eye-wash.</li> </ul>			
6.9	Broken glassware (sharp edges, chips, cracks) not sent to workshop/not in broken glass bin.	Reminders only		
	<ul style="list-style-type: none"> <li>Broken glass should not be used but should be sent to glass blowing workshop for repair.</li> </ul>			
6.10	Fume hood/Bio Safety Cabinets used inappropriately for storage and overly cluttered.	Reminders only		
	<ul style="list-style-type: none"> <li>Fume hoods where possible be cleared of clutter and should not be used indiscriminately for storage of chemical bottle and samples.</li> </ul>			
6.11	Gas cylinders not tagged with status tags indicating FULL/IN-USE/EMPTY.	Reminders only		
	<ul style="list-style-type: none"> <li>Gas cylinders must be tagged to indicate their usage.</li> </ul>			
6.12	First Aid Box cart-lock broken and not replaced and its usage was not alerted to the building First Aider.	Reminders only		
	<ul style="list-style-type: none"> <li>After using the first aid box, its contents must be checked and replenished. And locked by Authorized personnel. First Aid Boxes are only to be used during emergencies.</li> </ul>			
		Total Points Deducted		

-Each PI will be given only 300 points.