

## Machine Shop Safety Policies

All students should note the following policies about SEAS Machine Shop:

1. Ensure you are fully aware of your facility's/building's evacuation procedures.
2. Make sure you know where your Machine Shop safety equipment; including first aid kit(s), fire extinguishers, eye wash stations, and safety showers is located and how to properly use it.
3. Know emergency phone numbers (**Public Safety: 202.274.5050**) to use to call for help in case of an emergency.
4. **No person will work in the Machine Shop area alone** unless it is expressly authorized by the Department Chairman, Faculty, Research advisor, Mentor, or Lab Engineer. If the student is permitted into the workshop, he/she must be accompanied by the Faculty member. Hours of operation shall be established.
5. New students are not permitted to use any machinery and equipment prior training and the presence of the Faculty, Research advisor, Mentor, Lab Engineer or experienced student.
6. All students, new and old, should take safety training prior to the use Machine Shop machinery and equipment.
7. **The Machine Shop should be kept well organized and neat all the time.** Floors, machines, and other surfaces must be kept free of dirt, wood and metal chips, sawdust, oil and grease and other debris. Everyone must clean up after work and help arrange scattered things in proper places.
8. Identify risks and safety procedure for your project prior to manufacture or fabrication. Research advisor, mentor, lab engineer or experienced students may give general direction but ultimately you are responsible for your own and Machine Shop safety.
9. Absolutely "**No food and Drink**" is allowed in Machine Shop.
10. **Safety glasses must be worn at all time when you are working in the Machine Shop.** Hearing protection is highly recommended and may be required in some instances.
11. **No gloves** (recommended for material handling only; not during machinery use). No long sleeve shirts, loose shirt tails (tuck into pants), No neck ties, scarves, or hood strings, No loose jewelry (i.e. necklaces, bracelets, watches, rings, etc.), No open-toed shoes (i.e. sandals, flip flops)
12. **Personal Protective Equipment (PPE):** Students who use machinery and equipment and who are exposed to the hazards of falling, flying, abrasive and splashing objects, or exposed to harmful dusts, fumes, mists, vapors, or gases will be provided with the appropriate equipment needed by the Lab Engineer, to protect them from the hazard.
13. **For Your Information: Impact of alternating current (AC) on the body**

Current	Effect
1 - 5 mA	Threshold of sensation
5 - 20 ma	Involuntary muscle contraction ("cannot-let-go")
20 - 100 mA	Pain, breathing difficulties
100 - 300 mA	Ventricular fibrillation (changes in heart beat), <i>possible death</i>
> 300 mA	Respiratory paralysis, burns, unconsciousness
14. **If you are the last person to leave the lab, make sure to lock all the doors and turn off all** ignition sources.
15. **Keep track of new changes and guidelines.**

### CONTACT

Pablo E. Sanchez Guerrero, M.Sc.  
Laboratory Engineer  
Room 32 C01B  
Office (202) 274-6419  
Cell (202) 380-7366  
E-mail : pablo.sanchezguerrer@udc.edu

Ludwig C. Nitsche, PhD  
Associate Dean  
Room 42 212-T  
Office: (202) 274-5082  
Email: Ludwig.Nitsche@udc.edu