

# Advanced Composites Lab: Rules and Policies

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## General Rules and Policies for Researchers and Frequent Users of the Advanced Composites Lab

Lab rules will be followed very strictly. You may be prohibited to use the lab, if you handle chemicals and/or nano-particles carelessly.

1. Before you start working in the lab you must have:
  - a. Read 'Hazardous Communication' presentation and have passed the Quiz on TRACS or, SAP.
  - b. Read 'Hazardous Waste' presentation and have passed the Quiz on TRACS or, SAP.
2. Before you work in Nanoparticle Containment Room (NC Room or, Nano Room) you must have:
  - a. Passed PFT (Pulmonary Function Test) with the Respiratory Care Department.
  - b. Read 'Respirator Training' presentation and have passed the Quiz on TRACS.
  - c. Passed Fit-Test on Respirator with Environmental Health, Safety and Risk Management (EHS & RM)
3. Log book: There is a common log book. Everyone needs to sign-in and sign-out when using any of the instruments in the lab. Please book your dates a week before you like to use specific instrument/s.
4. Please, read SDS (Safety Data Sheet) of chemicals that you will be using and follow instructions related to handling and storing.
5. Please, perform experiments under the supervision of designated lab coordinator/s. Students (other than research students) are NOT allowed to work independently.
6. Please, identify locations of all chemicals in the lab, SDS folder, emergency phone numbers, eye wash and drench shower, first-aid, aprons, gloves, safety glasses, chemical storage areas, chemical disposal bins and emergency exits.
7. Please, wear full length pants in the lab at all times. No tank tops, spaghetti straps or bare midsection.
8. Please, wear closed toed shoes in the lab at all times. No flip-flops, sandals, or chappals.
9. No food or drink is allowed in the lab.
10. You must wear appropriate Personal Protective Equipment (PPE) while working in the lab, especially when handling liquid chemicals. PPE: Lab coat, Gloves, aprons, safety glasses, face shields, nose masks, respirator are provided.
11. You MUST wear half-mask respirator when handling nanoparticles and when handling **polyurethane** resin.
12. Please, maintain a clean work environment. Be considerate and leave your work area in a neat and clean condition.
13. If you create any mess (such as resin spill or fabric cutting) it is your responsibility to clean your mess immediately.
14. After using tools, gages, chemicals or other items, return them to their designated storage location immediately.
15. All small containers (having cured or uncured resin) must be placed under fume hood and MUST be labeled with a marker to indicate their content. These containers are called secondary containers.
16. Wash basin in the lab is ONLY for washing hands. Do NOT wash/clean glassware or plastics ware in wash basin.
17. If you break any equipment please report it immediately.
18. Do not leave any equipment running and unattended. You should be around.
19. Please, shut off machines, mixers, vacuum pump once you are done.
20. If you are heating/curing any material overnight or for long hours, you MUST place a note on the oven indicating the material inside, when it was kept, and when it should be removed.
21. Follow protocols for cured, uncured resin, rags, VARTM bagging material, etc. Do not throw everything in garbage container. Place them in designated satellite waste containers.
22. All nanoparticle contaminant waste such as wipes, rags, beakers, napkins, respirator cartridges etc. MUST be put in Zip-lock bag and kept in Nanoparticle Containment Room.
23. When in doubt, consult Ray Cook, Jason Wagner, Dr. Tate, or EHS&RM personnel. All important phone numbers are placed near SDS folder.
24. Contact information in the Ingram School of Engineering:
  - Dr. Jitendra S. Tate, [jt31@txstate.edu](mailto:jt31@txstate.edu), office: 512-245-4875
  - Mr. Ray Cook, [rc31@txstate.edu](mailto:rc31@txstate.edu), office: 512-245-2050
  - Ingram School of Engineering, office: 512-245-1826

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## Special Instruction for Research Students

- Ask undergraduate students to write experimental procedure before they begin. Get the procedure approved from Dr. Tate well in advance.
- Reading Haz Com, Haz Waste, and Respirator presentation is not sufficient. You need to strictly follow yourself and make students follow it.
- Before you file SDS read **storage and handling and labeling** instructions carefully. [Remember that, NOT all resins and catalysts are labeled **RED**].
- You must write receiving date and date when you opened the container on major and secondary containers.
- File SDS in the folder immediately.
- File packing slip in appropriate folder immediately.
- File "Analysis Report" in Technical Data Sheet folder immediately.
- Do not remove any setup of your fellow research student without contacting him/her.

**Below is a list of general regulations for the successful operation in the Nanoparticle Containment (NC) Room. Anyone working in this room must follow these guidelines.**

1. All personal items such as keys, watches, and rings should be stored outside the nanoroom.
2. Valuable personal items such as wallets may be permitted in the nanoroom provided they are NEVER removed from beneath the nanoroom garments.
3. NO eating, drinking, or gum chewing allowed inside the nanoroom.
4. Only approved room paper shall be allowed in the nanoroom.
5. Ball point pens shall be the only writing tool used.
6. Use of paper or fabric towels is prohibited. Use cleaning towels within the nanoroom.
7. Only approved gloves, pliers, tweezers should be used to handle product.
8. All tools, containers and fixtures used in the cleaning process should be cleaned to the same degree as the nanoroom surfaces.
9. NO tool should be allowed to rest on the surface of a bench or table. It should be placed on a nanoroom wiper.
10. Only nanoroom approved wipers are allowed to be used.
11. NO ONE who is physically ill (especially with respiratory or stomach disorders) may enter nanoroom.
12. All nanoparticle contaminant waste such as wipes, rags, beakers, napkins, respirator cartridges etc. MUST be put in Zip-lock bag and kept in nanoroom.

## Personal Actions Prohibited in NC Room:

1. Fast motions such as running, walking fast or horseplay.
2. Sitting or leaning on equipment or work surfaces.
3. Writing on equipment or garments.
4. Removal of items from beneath the nanoroom garments.
5. Wearing the nanoroom garment outside the nanoroom.
6. Wearing torn or soiled garments.

*By signing below, I certify that I have carefully read rules and policies of the Advanced Composites Lab. I have attended or, read 'Hazardous material training', 'Hazardous waste training', 'Respirator training' presentations and have taken quiz on it. I also have undergone safety training provided by Mr. Ray Cook or, his staff. Further, my signature indicates that I will abide by, and be responsive to, all rules and policies of the Advanced Composites Lab.*

Name (Print): \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_