

(An Autonomous Institution, Affiliated to Bharathiar University)
90, Palghat Road, Pollachi - 642001, Coimbatore, Tamil Nadu, India.
95th Rank in NIRF – 2023 among Colleges in India.



4.4.2 MAINTENANCE OF COMPUTER LAB

Procedure & Maintenance of Laboratories

- The department sends the lab requirements to the principal, who then sends them to three or four companies and obtains a quotation from them. Based on the quotation, the purchase will be made.
- Equipment and recurring items are purchased at regular intervals.
- Entries in the accession register are made for the use of projectors and the replacement of accessories in the lab.
- The stock registers are updated each year.

Maintenance

- Adequate spares are purchased at the beginning of every academic year, and all the systems are available for use.
- > Systems are kept in an E-shaped in all the labs, which increases the amount of available space for learning and equipment.
- The complaint register is maintained in the lab.
- Computer labs are equipped with UPS inverters and air conditioners that are also subject to regular maintenance, servicing, and repair.
- ➤ The system adviser is in charge of updating the operating system each year, antivirus, browsing control, hardware protection, and LAN connections.
- Lab assistants are in charge of the overall maintenance of the lab, like changing the printer, cartridges, toners, and students' attendance inside the lab. They also clean the monitor with cloth and remove the dust from the keyboards, mouse, and other parts. This is done regularly, and a record is maintained for that.
- Students and faculty can register system problems in the complaint register. The system engineer will replace the repaired system or any repaired hardware parts immediately, and maintenance will be requested for that.



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MAINTENANCE OF PHYSICS LAB

A physics lab must be kept up-to-date in order to ensure that the tools are working properly, the surroundings are secure, and experiments may be carried out without disruption or contamination. A few essential actions for keeping a physics lab are listed below:

Routine cleaning:

To avoid contamination or the accumulation of hazardous items, the lab must be regularly cleaned. This entails wiping down surfaces, sweeping floors, and washing glassware and tools.

Maintenance of equipment:

It is important to frequently inspect the equipment in a physics lab to make sure it is operating properly. This can involve adjusting instruments, changing out worn-out components, and looking for leaks or other damage.

Safety checks:

Conducting frequent safety checks should be a high priority for each lab. This involves checking first aid packs, eyewash stations, and other emergency supplies like fire extinguishers.

Instrument calibration:

To assure the correctness of the equipment in a physics lab, calibration is essential. Regular calibration is necessary to make sure the instruments are operating properly.

Inventory management:

To make sure that the lab is always equipped with all it needs and that any dangerous products are handled securely, keeping track of supplies, chemicals, and equipment is crucial.

Staff training:

The proper use of equipment, lab safety, and cleaning techniques should be taught to every member of the staff. To make sure that everyone is knowledgeable about safety procedures and best practises, hold regular training sessions.

The proper functioning of a physics lab, everyone's safety while working there, and the production of precise and trustworthy results can all be supported with these maintenance procedures.

Criteria: 4.4.2



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MAINTENANCE OF CHEMISTRY LAB

A chemistry lab needs to be maintained in order to remain secure, spotless, and operational. Here are some important factors to think about: **Safety**: In any chemistry lab, safety should come first. Make sure that every member of the lab staff has received training in lab safety and is using the right procedures while handling chemicals, equipment, and waste. Ensure that readily accessible emergency supplies, including eyewash stations, fire extinguishers, and first aid kits, are in good working order.

Cleaning:

To avoid contamination and preserve experiment accuracy, a lab must be kept clean. Glassware, equipment, and lab surfaces should all be regularly cleaned and disinfected. To avoid risks, all garbage and chemicals should be appropriately stored and disposed of properly. **Equipment maintenance:**

To guarantee that measurements are accurate and dependable, lab equipment, including balances, spectrometers, and pipettes, needs to be regularly maintained and calibrated. A clean lab is essential to prevent contamination and maintain accuracy in experiments. Regular cleaning and disinfection of lab surfaces, equipment, and glassware should be performed. All chemicals and waste should be properly stored and disposed of to prevent hazards.

To guarantee that measurements are precise and dependable, lab apparatus, including balances, spectrometers, and pipettes, must undergo routine maintenance and calibration.

Inventory management:

For the sake of efficiency and safety, lab inventory management must be done properly. Make sure that all chemicals and reagents are identified, tracked, and stored correctly. To make sure that supplies are sufficient and have not expired, regularly check the inventory.

Record-keeping:

Maintaining lab safety, following rules, and reproducibility of studies all depend on accurate record-keeping. Keep thorough records of every experiment, including the steps taken, the results, and the observations.

Make sure a chemistry lab is secure, clean, and operational by adhering to these essential standards.

Criteria: 4.4.2



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DEPARTMENT OF CHEMISTRY

Safety Rules for Laboratory DO's

- 1. Students must wear a lab coat before entering the lab.
- 2. Students should wear foot wear.
- 3. Use match sticks to light the burner. Adjust the air holes properly to have blue flame.
- 4. Match box, washing powder, observation note books should be brought to Lab.
- 5. Before coming to the practical classes, aim of the experiment, procedure and calculation must be known.
- 6. While heating the test tube, it should be heated in a slanting position.
- 7. Demonstration should be observed carefully.
- 8. Recording the observation then and there is required.
- 9. Observations, record notebooks should be submitted at the stipulated time.
- 10. Balance should be properly handled as per the instructions.
- 11. Keep silence in the lab.
- 12. Keep your place clean.
- 13. Tie back long hair.
- 14. Report all accidents to your teacher

Safety Rules for Laboratory Dont's

- 1. Students should not handle the concentrated acids in naked hands.
- 2. Students should not pour the concentrated acids directly to the sink.
- 3. Students should not taste and smell chemicals.
- 4. Don't spill and waste the chemicals.
- 5. No food or drink in the lab, to avoid possible contamination.
- 6. Never leave burners unattended.
- 7. Contact lenses are not allowed.
- 8. Do not wear bulky or dangling clothing.
- 9. No student may work in the laboratory without an instructor present.
- 10. Do not wear valuable jewel while working in the lab.



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MAINTENANCE OF BOTANY LAB

Maintaining a botany lab involves ensuring that the laboratory is a safe and efficient working environment for all researchers and students. Here are some key aspects of maintaining a botany lab:

Safety measures: Safety should always be the top priority in any laboratory setting. Make sure that all safety protocols are followed, including wearing appropriate personal protective equipment (PPE), such as lab coats, gloves, safety glasses, and closed-toe shoes. Make sure that all lab equipment is well-maintained and in good working order, and that hazardous materials are properly labeled, stored, and disposed.

Regular cleaning: Keep the laboratory clean and free of clutter. This includes regular cleaning of bench tops, floors, and equipment. Use appropriate cleaning materials to avoid contamination of experiments and specimens.

Equipment maintenance: Ensure that all equipment is regularly maintained and calibrated. Keep a record of equipment maintenance, and schedule regular inspections and repairs as needed. Make sure that all equipment is used properly and safely, and that all users are trained in its use.

Specimen maintenance: Maintain living specimens, such as plants, by providing them with adequate light, water, and nutrients. Keep track of the life cycle of plants, and make sure that they are properly labeled and organized.

Data management: Keep a detailed record of all experiments, including protocols used, data collected, and results obtained. Use appropriate software for data management, and make sure that all data is backed up regularly.

Communication: Establish clear communication channels between lab members and ensure that everyone is aware of safety protocols, equipment usage, and experiment protocols. Have regular lab meetings to discuss ongoing experiments and future plans.

By following these guidelines, Botany lab is a safe and productive environment for all researchers and students

Criteria: 4.4.2



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MAINTENANCE OF ZOOLOGY LAB

The maintenance of a zoology lab requires attention to several areas including equipment, supplies, safety protocols, and specimen care. Here are some general guidelines for maintaining a zoology lab:

Equipment: Check all equipment regularly to ensure it is in good working order. This includes microscopes, dissecting tools, computers, and any other equipment used in the lab. If any equipment is broken or not functioning properly, it should be repaired or replaced immediately.

Supplies: Keep an inventory of all supplies used in the lab, such as chemicals, slides, cover slips, and reagents. Ensure that adequate supplies are always available and restock as necessary. Keep chemicals and reagents properly labeled and stored in appropriate locations to avoid contamination.

Safety: Ensure that all safety protocols are followed in the lab. This includes wearing appropriate protective clothing, such as gloves and lab coats, and following proper disposal procedures for hazardous waste.

Specimen care: If the lab involves live animals, ensure that they are properly cared for and housed in appropriate enclosures. For preserved specimens, ensure that they are properly labeled and stored in appropriate solutions to prevent deterioration.

Cleaning: Regularly clean all surfaces, equipment, and containers in the lab to prevent contamination and the spread of disease.

Record keeping: Keep detailed records of all experiments, observations, and results. This will help to ensure that the lab is operating effectively and can aid in troubleshooting if any issues arise.

By following these guidelines, Zoology lab operates effectively and safely.

Criteria: 4.4.2



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