

ROLES & RESPONSIBILITIES OF TECHNICAL STAFF

1.0 SCOPE

As employees of the **Bhartiya Vidya Bhavan's, Sardar Patel Institute of Technology**, the technical staffs have to follow the rules & regulations and code of conduct prescribed in performing their duties so as to ensure the set standards achieved. These rules and regulations and code of conduct are applicable to all full time and part-time staff members working either on time scale of pay or on consolidated pay attached to the Institute.

2.0 PRACTICAL CLASSES

a) Laboratories

The technical supporting staffs are employed in the laboratories of various departments. As far as Practical classes in the laboratory are concerned, the technical staffs are responsible for,

- i) Arranging the equipment/instruments for conducting experiments by students in pursuance of the instructions of the faculty member in charge of the practical class.
- ii) Issuing instruments to the students based on the instructions of the faculty under due acknowledgement of the students for conducting experiments.
- iii) Receiving of the gadgets/instruments issued to students, after checking for any malfunctioning, damage caused etc., and reporting to the faculty member any damages etc., if noticed.
- iv) While the faculty member in charge of the practical class is responsible for issuing instructions as how to conduct experiment, the technical support member should refrain from prompting the students.
- v) While the students conduct experiment, it is the duty of the technical staff to help the faculty member in ensuring that the students do not cause damage to the equipment due to wrong operation or mishandling.
- vi) After the laboratory class is over, the technical staff should ensure that the instruments and equipment used are cleaned properly for subsequent use.
- vii) In case of any damages, it should be properly entered in the register maintained for the purpose, so that a compiled statement could be sent to the Office at the end of the semester to effect recovery from the student concerned.
- viii) Wherever items/chemicals which are harmful, the supporting staff should watch to avoid misuse by students in the interest of the safety of students.
- ix) Carry out any other work assigned to them by staff in charge and HOD.

b) Workshops

The technical staffs such as Instructors and Technicians are employed in the Workshop primarily to Coach the students in technical skills involving machining etc. While the faculty member in charge of the Workshop class is responsible for briefing the students about the exercise, the theory behind it, precaution to be adopted etc., the technical staff is responsible for,

- i) Issuing of tools and gadgets required for carrying out the exercise assigned to the student and receiving it back after the class is over.
- ii) Coaching the students as how to operate the machine, mounting of tool, carrying out machining operation, etc.
- iii) Helping the students in grinding the blunt tool, so that the students acquire the skill involved in it.

- iv) Adjusting the machine tool, ensuring that they are kept clean after the students complete their exercises.
- v) Coaching the students in handling of hand tools involved in carpentry work, helping the student in learning simple carpentry works.
- vi) Coaching the students in fitting and welding activities, and in plumbing works.
- vii) Demonstrating to the students the steps involved in foundry and smithy related activities as per the instruction of faculty in charge of laboratory / practical class.
- viii) Keep a watch on the students so that they handle tools safely and securely in the interest of safety of students.
- ix) Technical staff should communicate with the students in English during Lab Classes.
- x) Carry out any other work assigned to them by staff in charge and HOD.

c) Testing and machine-oriented laboratories

There are many laboratories, wherein the students are given practical exposure in conducting tests, which involve sophisticated and costly machineries. The technical staff provides support services to the faculty member in charge of the practical class in coaching the students. Their responsibilities include,

- i) Helping the students in the preparation of specimens required as per the instruction of faculty for conducting the test. The technician should avoid doing by himself instead of the students.
- ii) Providing assistance if needed by the students in mounting the specimen and in handling the equipment or machinery so as to ensure that the equipment is not damaged.
- iii) Issue of necessary consumables from the sub stock required by the students for conducting the experiment and accounting it properly.
- iv) Keeping the testing equipment/machinery in operable condition by checking them when the laboratory classes are not held.
- v) Proper custody of all tools, gadgets, measuring instruments and other items of the laboratories and issue to the students and receipt back after the experiment is over.
- vi) Maintenance of the laboratory clean.
- vii) Carry out any other work assigned to them by staff in charge and HOD.

d) Electrical and Electronics laboratories

- i) To assist the faculty in charge of laboratory practical class for an effective and orderly conduct of practical courses.
- ii) To ensure whether all the equipment and machineries are in proper working condition before the commencement of lab classes.
- iii) To ensure the safety of the students during lab classes by carefully following the safety instructions.
- iv) To issue the required meters, instruments, components etc., to the students during practical classes and receiving the same back after completion of experiment.
- v) To help the students in the circuit debugging measurement observation, etc., in the regular lab classes
- vi) Keeping the working tables in their respective labs always in working condition by proper maintenance.
- vii) To help the students in the fabrication of working models, as a part of their project work.
- viii) Maintenance of the laboratory clean.
- ix) Carry out any other work assigned to them by staff in charge and HOD.

e) **Computer related laboratories**

- i) Routine maintenance of all computer systems, UPS and other peripherals related to laboratory.
- ii) Assisting the faculty in charge of laboratory class, so far as it relates to the hardware and system software problems.
- iii) If a system is in warranty period or in maintenance contract, wherever it develops defects, write and call the concerned company technical staff for fixing the defects.
- iv) Maintenance of computers attached to the Institute office and officials like Head of Institute and Faculty.
- v) Maintenance of networking of the laboratory concerned.
- vi) Creation of new login during the commencement of semester for the students, so that students can do new exercises during the semester.
- vii) Attending to the problem faced by students with respect to hardware and system software.
- viii) Arranging LCD projector to the classroom, conference hall, seminar hall, etc., as and when needed.
- ix) Loading specific software and upgrading of system to meet the specific requirement of students during project works.
- x) Maintenance of all software packages attached to the laboratory. Removal of viruses in the system as and when affected.
- xi) Switching off the systems and air conditioners when students are not using the laboratory to save energy consumption.
- xii) Reporting to the faculty member if the technical staff notice any misuse of the system by students.
- xiii) Keeping the laboratory clean.
- xiv) To carry out work assigned to them by staff in charge of Laboratory or HOD.

f) **Cleanliness and Maintenance**

With regard to cleanliness and maintenance, the duties and responsibilities of technical staff include,

- i) Ensuring that the laboratory/workshop, in which the technical staff are posted is kept clean and neat by using the sweepers posted for the purpose.
- ii) All the equipment / machinery should be maintained so that they are in good working condition always. In case of any fault/defect, it should be brought to the notice of the faculty in charge of the laboratory and take prompt action to rectify the defects.
- iii) The technical staff should ensure that the garbage accumulated in the laboratory or in the vicinity outside the laboratory are cleaned by the cleaning staff of the Institute posted for the purpose.
- iv) All safety items like fire extinguisher etc., should be kept in working condition and first aid materials are kept in the box to be used in case of emergency.
- v) Much equipment/measuring devices need periodical calibration. It is the responsibility of the technical staff to do recalibration with the help of faculty in charge or getting it done by outside agencies wherever it is needed.
- vi) Maintenance and exhibition of charts and other learning materials in the laboratory as per the instructions of the laboratory in charge is also the responsibility of technical staff.
- vii) The technical staff should bring it to the notice of faculty in charge about unserviceable items and items to be condemned. He/she should also help him/her in taking action to dispose them.
- viii) All the machineries and equipment are to be cleaned regularly by technical staff.

g) Record Keeping

Though the overall responsibility for the maintenance and upkeep of records pertaining to the laboratory is vested with the faculty member in charge of the laboratory, the technical staff is responsible for,

Maintaining the stock register for both consumable and non-consumable items by making entries then and there and getting it attested by the faculty member.

- i) Keeping the storeroom / cupboard wherein the tools, gadgets, etc., are stocked securely and safely and issue to the students on the instruction of the faculty under proper acknowledgement only.
- ii) Helping the faculty in reconciliation of stock of items if any discrepancy pointed out by the stock verification team.
- iii) Maintenance of register regarding breakage of item by students while doing experiment, preparing the statement duly attested by the faculty member at the end of semester for forwarding to the office to effect recovery.
- iv) Maintaining all instruction manuals and record notebooks submitted by students to the faculty for correction and redistribution back to the students.

3.0 INVOLVEMENT IN DEVELOPMENTAL ACTIVITIES

a) Laboratory Development

- i) The technical staff should contribute to the efforts of the faculty member in developing new experiments as and when needed.
- ii) Especially in project works, the students do come up with lots of new ideas. The technical staff with the approval of the project guide and the laboratory in charge should help the students in fabricating/assembling the experimental set up or developing gadget using the laboratory facilities.
- iii) Whenever new equipment/machinery are purchased, the technical staff should ensure their fullest co-operation to the faculty in charge in the installation of equipment.

b) Research related

- i) Whatever experimental set up needed by the Ph.D./M.Tech./MCA researchers, the technical staff should assist the research scholar with the approval of the laboratory in charge.
- ii) Not only help in preparing the experimental set up wherever needed, but the technical staff shall also assist the researcher in taking readings/measurements and in the operation of the gadget.
- iii) As an Institute, emphasis will be on sponsored research projects and consultancy, many research projects involve experiments, testing etc. Therefore, the technical staff of the laboratory should extend co-operation and help to the project co-ordinator and project associates in their endeavour.
- iv) Even if the work involves beyond the working hours of the institution, technical staff will have to render assistance to the project co-ordinators.

c) Testing for outside agencies

The institution may get request for testing components, materials etc., for certification from different sources. While conducting testing along with the faculty member, the technical staff should take utmost precaution in preparing samples and careful in testing, so that the credibility is ensured in certification.

4.0 EXAMINATION RELATED ACTIVITIES

The duties and responsibilities during practical examination are as follows:

- i) Issue of instruments and other equipment to the students as per the instruction of examiners appointed for the purpose.
- ii) Desist from revealing to the students any confidential information relating to the content and scope of the practical test given to the students.
- iii) Desist from giving any prompt or assistance to the students, who are undergoing examination thereby not jeopardizing the sanctity of the examination.
- iv) Checking all the equipment, machinery and tools for any defect and rectify the same so that the students do not face any difficulty during examination.

5.0 WORKLOAD

A full-time technical staff should perform a minimum of 40 hours of work per week for the Institute on a 5-day week basis (minimum 8 hours per day). The Institute has the right to fix the working hours and days depending upon the exigency.

- i) The 40 hours is only the minimum, but a technical staff is expected to devote more time to help faculty in connection with the execution of sponsored projects, consultancy work, continuing education, summer courses, etc.,
- ii) It is quite likely in some semesters; there may not be much work in a particular laboratory. Therefore, the HOD concerned will redeploy the technical staff depending on the need so that the workload is even out among the staff of the department.