



GURU NANAK EDUCATION TRUST



GURU NANAK INSTITUTE OF PHARMACEUTICAL SCIENCE AND TECHNOLOGY

(GNIPST)

*A JIS Group Institution | Approved by PCI | Accredited by NAAC & NBA | Affiliated to
Maulana Abul Kalam Azad University of Technology, West Bengal (MAKAUT)
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INSTITUTIONAL POLICY DOCUMENT ENVIRONMENT AND GREEN CAMPUS POLICY

Document Control

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Table of Contents

1. Preamble	
2. Objectives of the Policy	
3. Legal and Regulatory Framework.....	
4. Definitions	
5. Scope and Applicability	
6. Institutional Mechanism – Green Campus Committee	
7. Energy Conservation and Renewable Energy.....	
8. Water Conservation and Management.....	
9. Waste Management.....	
10. Laboratory Safety and Green Chemistry	
11. Green Cover, Biodiversity and Medicinal Plant Garden.....	
12. Clean Air, Sustainable Transport and Tobacco-Free Campus	
13. Green Buildings and Sustainable Procurement.....	
14. Environmental, Green and Energy Audits	
15. Awareness, Curriculum and Community Outreach.....	
16. Roles and Responsibilities	
17. Records, Reporting and Monitoring.....	
18. Financial Provisions	
19. Non-Compliance and Disciplinary Provisions.....	
20. Amendment and Review of Policy	
21. Approval	
Annexure I – Departmental Green Audit Checklist	
Annexure II – Laboratory Chemical and Bio-Medical Waste Disposal Record	
Annexure III – Green Campus Activity Report.....	

1. Preamble

Guru Nanak Institute of Pharmaceutical Science and Technology (GNIPST), established in 2005 under the aegis of the Guru Nanak Education Trust and nurtured within the JIS Group, recognises its responsibility towards the environment and the community in which it functions. As a pharmaceutical institution with laboratories, an animal house and a medicinal plant garden, the Institute generates chemical, biological and other wastes, and consumes energy, water and materials, all of which must be managed responsibly.

This Environmental and Green Campus Policy has been framed in line with the environmental laws and waste management rules of the Government of India and the Government of West Bengal, the guidelines of the University Grants Commission (UGC), and the Pharmacy Council of India (PCI), the environmental and green practice criteria of the National Assessment and Accreditation Council (NAAC), and the national Mission Life (Lifestyle for Environment), so as to make GNIPST a clean, green, safe and sustainable campus.

2. Objectives of the Policy

The specific objectives of this policy are to:

- Reduce the environmental footprint of the Institute through the efficient use of energy, water and materials.
- Promote the use of renewable energy and energy-efficient technologies.
- Ensure the safe segregation, handling and disposal of all wastes, especially laboratory chemical, bio-medical and electronic waste, in compliance with applicable rules.
- Develop and maintain green cover, biodiversity and a medicinal plant garden on the campus.
- Promote green chemistry and environmentally responsible laboratory practices in teaching and research.
- Create environmental awareness among students, employees and the community, and encourage sustainable lifestyles.
- Conduct periodic environmental, green and energy audits, and maintain records for NAAC, NBA and other reporting.

3. Legal and Regulatory Framework

This policy is framed in accordance with, and shall be read together with, the following, as amended or replaced from time to time:

- The Environment (Protection) Act, 1986; the Water (Prevention and Control of Pollution) Act, 1974; and the Air (Prevention and Control of Pollution) Act, 1981.
- The Bio-Medical Waste Management Rules, 2016.
- The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
- The Solid Waste Management Rules and the Plastic Waste Management Rules, including the prohibition on identified single-use plastic items.
- The E-Waste (Management) Rules, 2022 and the Battery Waste Management Rules, 2022.
- The Cigarettes and Other Tobacco Products Act, 2003 (COTPA).
- The directions of the West Bengal Pollution Control Board and the local municipal authority, as applicable.
- Applicable guidelines of UGC, PCI and MAKAUT, and the NAAC criteria relating to environment and sustainability.

In the event of any conflict between this policy and the applicable law, the law shall prevail.

4. Definitions

"Institute" means Guru Nanak Institute of Pharmaceutical Science and Technology (GNIPST), including its campus, buildings, laboratories, animal house, hostels, canteen and all premises under its control.

"Green Campus Committee" means the committee constituted under Section 6 of this policy.

"Bio-Medical Waste" means waste generated in the diagnosis, treatment or immunisation of human beings or animals, or in research activities pertaining thereto, including animal carcasses, microbiological and biotechnology waste, sharps and contaminated materials, as defined under the Bio-Medical Waste Management Rules, 2016.

"Hazardous Chemical Waste" means spent solvents, reagents, expired chemicals and other laboratory wastes that are toxic, flammable, corrosive or reactive.

"E-Waste" means discarded electrical and electronic equipment, including computers, peripherals, instruments and their components, as defined under the E-Waste (Management) Rules, 2022.

"Green Audit" means a systematic assessment of the environmental performance of the Institute, including energy, water, waste, green cover and related practices.

"Competent Authority" means the Director/Principal of the Institute, or the Governing Body where specified.

5. Scope and Applicability

This policy applies to all students, faculty, staff, research scholars, contractors, service providers (including canteen, housekeeping and security agencies) and visitors of GNIPST, and to all activities on the campus, including teaching, research, laboratory work, animal experimentation, administration, hostels, events and construction or maintenance work.

6. Institutional Mechanism – Green Campus Committee

A Green Campus Committee shall be constituted by the Director, as follows:

- **Chairperson:** Director / Principal, GNIPST
- **Convenor:** Senior faculty member nominated by the Director as Green Campus Coordinator
- **Members:** One faculty representative from each department, the Laboratory Safety Officer, the in-charge of the animal house, the Estate/Maintenance in-charge, a representative of the Finance & Accounts Office, the NSS Programme Officer, and two student representatives
- **External Member:** An environmental expert or representative of a recognised environmental organisation, nominated by the Director, where feasible

The Green Campus Committee shall be responsible for:

- Preparing an annual green campus plan and calendar of activities, and monitoring its implementation.
- Overseeing energy, water, waste and green cover management on the campus.
- Ensuring compliance with environmental and waste management rules, including agreements with authorised waste handlers.
- Arranging environmental, green and energy audits and following up on their recommendations.
- Organising awareness programmes and outreach activities in coordination with the NSS and student clubs.
- Meeting at least twice in each academic year, with minutes duly recorded.

7. Energy Conservation and Renewable Energy

- Lights, fans, air conditioners, computers and instruments shall be switched off when not in use. Signage to this effect shall be displayed in all rooms and laboratories.
- Conventional lighting shall be progressively replaced with LED lighting, and energy-efficient (BEE star-rated) appliances shall be preferred in all new purchases.
- Air conditioners shall be set at an energy-efficient temperature (such as 24–26°C, as per national guidance) and used only where required.

- Occupancy sensors, timers and automatic controls shall be installed in common areas where feasible.
- The Institute shall install and expand renewable energy systems, such as rooftop solar panels and solar water heaters, as resources permit, and shall monitor the energy they generate.
- Electricity consumption shall be metered and reviewed periodically, building-wise where feasible, to identify areas for saving.
- Instruments and equipment such as ovens, incubators, fume hoods and refrigerators shall be operated efficiently and maintained regularly.

8. Water Conservation and Management

- Rainwater harvesting systems shall be installed and maintained on buildings and open areas, where feasible, for groundwater recharge or reuse.
- Taps, pipelines, tanks and flush systems shall be inspected regularly and leaks repaired promptly. Water-efficient fixtures shall be preferred in new installations.
- Overflow of overhead tanks shall be prevented through float valves or automatic level controllers.
- Water used in laboratories (such as from distillation units, reverse osmosis systems and condensers) shall be conserved and, where feasible, reused for non-laboratory purposes such as gardening.
- Drinking water facilities shall be maintained, with the quality tested periodically.
- Laboratory effluents shall not be discharged into drains without appropriate neutralisation or treatment, as per Section 9.4.

9. Waste Management

All wastes generated on the campus shall be segregated at source and handled as follows:

Category of Waste	Examples	Method of Handling and Disposal
Biodegradable (wet) waste	Food waste, garden waste, leaves	Segregated in green bins; composted on campus or handed over to the municipal authority
Non-biodegradable (dry) waste	Paper, cardboard, plastics, metal, glass	Segregated in blue bins; recyclables sold or handed over to authorised recyclers
Hazardous chemical waste	Spent solvents, expired chemicals and reagents, contaminated containers	Collected in labelled, compatible containers; disposed of through an authorised hazardous waste handler
Bio-medical waste	Animal carcasses and tissues, microbiological cultures, sharps, contaminated items	Segregated in colour-coded bags and containers; disposed of through an authorised Common Bio-Medical Waste Treatment Facility
E-waste and batteries	Computers, instruments, batteries, tube lights	Stored securely; handed over only to authorised e-waste recyclers or producers
Construction and demolition waste	Debris from repairs and construction	Reused where possible or disposed of as per municipal rules

Note: Colour-coding and methods shall follow the applicable rules as amended from time to time.

9.1 Plastic-Free Campus

The use of identified single-use plastic items (such as plastic cutlery, cups, straws, thin carry bags and plastic flags or banners) is prohibited on the campus. The canteen, events and offices shall use reusable or biodegradable alternatives. Users shall be encouraged to carry reusable water bottles, bags and containers.

9.2 Paper Reduction

The Institute shall promote a paper-light office through the use of e-mail, ERP and learning management systems for circulars, notices, assignments and records, double-sided printing, and reuse of single-sided paper for rough work.

9.3 E-Waste

E-waste shall be collected and stored at a designated place, recorded, and disposed of only through recyclers authorised by the Pollution Control Board, after secure erasure of data, in accordance with the Institute's IT Policy and the E-Waste (Management) Rules, 2022.

9.4 Hazardous Chemical Waste

- Chemical waste shall be segregated by compatibility (for example, halogenated and non-halogenated solvents, acids, bases, heavy metals and oxidisers) in labelled, closed containers, and shall never be mixed indiscriminately.
- Only dilute, non-hazardous aqueous solutions may be discharged to drains after neutralisation and with running water, as permitted by the Laboratory Safety Officer. Organic solvents, heavy metals and toxic chemicals shall never be poured into sinks or drains.
- Expired and unused chemicals shall be inventoried and disposed of periodically through an authorised hazardous waste handler, with records maintained.

9.5 Bio-Medical Waste

- Bio-medical waste from the animal house, microbiology, biotechnology and pharmacology laboratories shall be segregated at source in colour-coded bags and containers, pre-treated where required (for example, autoclaving of microbiological waste), and handed over to an authorised Common Bio-Medical Waste Treatment Facility, as per the Bio-Medical Waste Management Rules, 2016.
- The Institute shall obtain the necessary authorisation from the West Bengal Pollution Control Board where required, maintain the prescribed records, and submit reports as required under the Rules.
- Disposal of animal carcasses shall also comply with the guidelines of the Committee for Control and Supervision of Experiments on Animals (CCSEA) and the Institutional Animal Ethics Committee.
- Staff handling bio-medical waste shall be trained and provided with personal protective equipment and, where required, immunisation.

10. Laboratory Safety and Green Chemistry

- Every laboratory shall follow standard safety practices, including the use of personal protective equipment, availability of fire extinguishers, eye-wash stations, first-aid kits, spill kits and material safety data sheets (MSDS/SDS).
- Chemicals shall be purchased in the quantities needed, stored safely by compatibility, labelled clearly and recorded in a chemical inventory, to prevent wastage and accidents.
- Principles of green chemistry shall be promoted in teaching and research, such as microscale experiments, use of safer solvents and reagents, solvent recovery and recycling, and reduction of hazardous by-products.
- Fume hoods shall be used for volatile and toxic chemicals, and shall be checked periodically for proper functioning.
- Gas cylinders shall be stored and handled safely, secured upright, away from heat and with appropriate regulators.

- Laboratory accidents, spills and exposures shall be reported immediately to the Laboratory Safety Officer and recorded.

11. Green Cover, Biodiversity and Medicinal Plant Garden

- The Institute shall maintain and enhance the green cover of the campus through tree plantation drives, lawns, potted plants and landscaping with native and suitable species.
- A medicinal plant (herbal) garden shall be maintained as a learning resource for pharmacognosy and allied subjects, with plants labelled with their botanical names, families and medicinal uses.
- Existing trees shall not be cut or damaged without the approval of the Competent Authority and any permission required under local law. Where removal is unavoidable, compensatory plantation shall be undertaken.
- Organic manure from on-campus composting shall be used for gardens, and the use of chemical pesticides and fertilisers shall be minimised.
- A record of trees, plant species and plantation drives shall be maintained.

12. Clean Air, Sustainable Transport and Tobacco-Free Campus

- The campus shall be a tobacco-free and smoke-free zone in accordance with COTPA, 2003. The sale of tobacco products within 100 yards of the Institute is prohibited, and appropriate signage shall be displayed.
- The use of bicycles, walking, public transport, car-pooling and electric vehicles shall be encouraged. Vehicle engines shall not be left idling on campus.
- Designated parking areas shall be provided, and vehicle movement within the campus may be restricted to designated zones.
- Burning of waste, leaves or any other material on the campus is strictly prohibited.
- Generators shall be maintained to comply with emission and noise norms, and noise levels on the campus shall be kept within permissible limits.

13. Green Buildings and Sustainable Procurement

- New construction and renovation shall, as far as feasible, incorporate green building features such as natural lighting and ventilation, energy-efficient design, rainwater harvesting, water-efficient fixtures, and the use of eco-friendly materials.
- The campus shall be made accessible and safe for persons with disabilities, including ramps, railings, accessible restrooms and signage.
- Procurement shall give preference to energy-efficient, water-efficient, recyclable, recycled-content and less hazardous products, and to vendors who follow environmentally responsible practices, subject to the Institute's purchase procedure.
- Contracts with canteen, housekeeping and maintenance service providers shall include compliance with this policy, including waste segregation and the ban on single-use plastics.

14. Environmental, Green and Energy Audits

The Institute shall conduct the following audits periodically, through internal teams and/or qualified external agencies:

Audit	Coverage	Indicative Frequency
Green Audit	Green cover, waste management, water, paper, transport and green practices	Once every year
Energy Audit	Electricity consumption, efficiency of lighting and equipment, renewable energy use	Once every year, and by an external agency at least once in the accreditation cycle
Environment Audit	Compliance with environmental and waste management rules, air, water and noise quality	Once every year
Laboratory Safety Audit	Chemical storage, waste handling, safety equipment and practices	Once every year

Note: Frequencies are indicative and may be revised by the Green Campus Committee in line with NAAC requirements.

Departments shall complete the Departmental Green Audit Checklist (Annexure I). Audit reports and action plans shall be placed before the Green Campus Committee, the IQAC and the Competent Authority, and the implementation of recommendations shall be reviewed in the next audit.

15. Awareness, Curriculum and Community Outreach

- Environmental studies and sustainability shall be addressed through the curriculum as prescribed, and through value-added courses, projects and research on topics such as green chemistry, pharmaceutical waste, environmental toxicology and the environmental impact of medicines.
- Awareness programmes, competitions, rallies and campaigns shall be organised on occasions such as World Environment Day, Earth Day and World Water Day, and in line with Mission LiFE.
- An eco-club or green club of students may be formed to lead green initiatives on the campus.
- Outreach activities such as tree plantation, cleanliness drives, awareness on the safe disposal of unused and expired medicines, and campaigns against plastic use shall be conducted in nearby communities through the NSS and other units.
- Activities shall be documented using the Green Campus Activity Report (Annexure III).

16. Roles and Responsibilities

- **Heads of Departments:** Ensure implementation of this policy in their departments, including laboratory waste management and energy conservation.
- **Laboratory Safety Officer and laboratory in-charges:** Ensure safe handling, storage and disposal of chemicals and bio-medical waste, and maintain the records in Annexure II.
- **Estate/Maintenance section:** Manage energy, water, waste collection, green cover and infrastructure maintenance.
- **Faculty and staff:** Follow this policy, set an example to students, and report any violation or hazard.
- **Students:** Follow this policy, participate in green initiatives, and use resources responsibly.
- **Service providers:** Comply with this policy as part of their contractual obligations.

17. Records, Reporting and Monitoring

The Green Campus Committee shall maintain records of energy and water consumption, renewable energy generation, waste generated and disposed of (including manifests and certificates from authorised handlers), plantation drives, audits, awareness programmes and outreach activities, together with supporting documents and photographs. An annual Green Campus Report shall be compiled and placed before the Governing Body, and shall form part of the Institute's NAAC, NBA and other compliance reporting. Statutory returns under the waste management rules shall be filed with the Pollution Control Board as required.

18. Financial Provisions

An annual budget for green campus activities, including renewable energy and energy-efficiency projects, rainwater harvesting, waste management services, plantation and garden maintenance, audits, and awareness programmes, shall be proposed by the Green Campus Committee and approved by the Competent Authority. The Institute may also seek funding under government schemes and corporate social responsibility (CSR) partnerships for green initiatives.

19. Non-Compliance and Disciplinary Provisions

Violation of this policy, including improper disposal of chemical or bio-medical waste, use of prohibited single-use plastics, smoking or tobacco use on campus, burning of waste, damage to trees and green areas, or wasteful use of energy and water, may result in one or more of the following, in addition to any penalty under applicable law:

- Written warning.
- Fine as determined by the Competent Authority, and recovery of the cost of any damage.
- Disciplinary action under the Institute's student disciplinary rules or service rules, as applicable.
- Action under the contract, in the case of service providers.

20. Amendment and Review of Policy

This policy shall be reviewed once every three years, or earlier if required by changes in environmental laws and rules, UGC/ PCI/NAAC guidelines, or Institute needs. Operational matters such as audit schedules and waste handling procedures may be revised by the Green Campus Committee with the approval of the Competent Authority. Any other amendment shall require the approval of the Governing Body of GNIPST and shall be communicated to all students, faculty and staff through official circulars.

21. Approval

This Environmental and Green Campus Policy has been recommended by the Green Campus Committee and is placed for approval before the Governing Body of Guru Nanak Institute of Pharmaceutical Science and Technology.

Prepared by
(Green Campus Coordinator)

Date:

Recommended by
(Director / Principal)

Date:

Approved by
(Chairperson, Governing Body)

Date:

Annexure I – Departmental Green Audit Checklist

Tick, describe or quantify as applicable; attach additional sheets if required.

1. Name of Department & Academic Year	
2. Number of Rooms / Laboratories Covered	
3. Lighting (LED / Conventional) & Energy-Saving Measures in Place	
4. Air Conditioners and High-Energy Equipment (number, star rating, usage practice)	
5. Water Fixtures, Leakages Observed & Water-Saving Measures	
6. Waste Bins and Segregation Practice	
7. Chemical Inventory, Storage and Waste Disposal Status	
8. Bio-Medical Waste Handling (if applicable)	
9. Paper Use and Digital Practices	
10. Single-Use Plastic Compliance	
11. Plants / Green Initiatives in the Department	
12. Observations and Recommendations	
13. Signatures of Audit Team & Head of Department, with Date	

Annexure II – Laboratory Chemical and Bio-Medical Waste Disposal Record

A separate entry shall be made for each consignment. Records shall be retained as required under the applicable rules.

1. Name of Laboratory / Department	
2. Date of Collection	
3. Category of Waste (Hazardous Chemical / Bio-Medical – with colour code / E-Waste)	
4. Description of Waste (chemical names or waste type)	
5. Quantity (kg / litres / number of containers)	
6. Pre-treatment Done, if any (neutralisation, autoclaving, etc.)	
7. Handed Over to (Name of Authorised Agency)	
8. Manifest / Challan / Certificate No. & Date	
9. Name & Signature of Laboratory In-charge	
10. Verified by Laboratory Safety Officer (Signature & Date)	

Annexure III – Green Campus Activity Report

1. Title of the Activity	
2. Type (Plantation / Awareness / Cleanliness Drive / Competition / Audit / Outreach / Other)	
3. Date(s) and Venue	
4. Organised by (Green Campus Committee / Department / NSS / Eco-Club)	
5. Resource Person(s), if any	
6. Number of Participants (Students / Staff / Community)	
7. Summary of the Activity	
8. Outcomes (e.g., saplings planted, waste collected, people reached)	
9. Supporting Documents Attached (Notice, Attendance, Photographs)	
10. Signature of Coordinator & Date	