

7.1.3 QnM: Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following

1. Green audit / Environment audit
2. Energy audit
3. Clean and green campus initiatives
4. Beyond the campus environmental promotion activities Options:
 - A. All of the above ✓
 - B. Any 3 of the above
 - C. Any 2 of the above
 - D. Any 1 of the above
 - E. None of the above





Laureate Institute of Pharmacy

Approved by PCI & AICTE, New Delhi and H.P. Govt., Affiliated to H.P. Technical University,
H.P. Takniki Shiksha Board, & Recognized Under 2(f) of UGC Act 1956

Ref. No.19PH/2022/Estt-5516-E

Date ...22/03/2022....

Policy Document on Green Campus

Laureate Institute of Pharmacy is situated in the Lush green area of Kangra valley and believes in sustainable and eco-friendly practices which are a combination of education to encourage sustainable and eco-friendly practises inside the campus. The concept of a green campus allows an institution to take the lead in reinventing its environmental culture and establishing new standards through proposing long-term solutions to environmental, social, economic issues and Civilization's economic needs.

The Go Green Program's goals are as follows:

- The first step in the Go Green Program is to form a credible Green-Campus Committee within the Institute's organisational structure.
- We believe that greening the campus wants eliminating unnecessary inefficiencies and relying on conventional energy sources for everyday power demands, as well as proper trash disposal, the purchasing of environmentally friendly goods, and an effective recycling programme.
- The Institute's leadership thinks that everyone must devise time-bound strategies for implementing green campus activities. These techniques must be incorporated into institutional design and implementation.
- With the goal of creating a clean and green campus, these techniques must be incorporated into institutional planning and costing processes.
- Every person on the Laureate institute Campus, whether a student, faculty member, or support staff member, will seek to develop a culture of self-sustainability and make the entire campus environmentally friendly.
- Green Campus Initiatives will allow transforming its campus into an active workroom for invention.

Laureate Institute of Pharmacy

Approved by PCI & AICTE, New Delhi and H.P. Govt., Affiliated to H.P. Technical University,
H.P. Takniki Shiksha Board, & Recognized Under 2(f) of UGC Act 1956

Ref. No.19.11.2022/ESTT-5516-I

Date ..22/03/2022...

- As a result, in order to offer this endeavour greater clarity and authenticity, we are today releasing a POLICY DOCUMENT that lays out the strategies, plans, and other ancillary duties that will make this Program officially operational.

The Go-Green Committee is made up of the following people.

1. The college's principal is the chairperson.
2. IQAC Coordinator-Secretary.
3. Faculty Representative appointed by the principal.
4. Student Representative-College General Secretary.
5. Office Superintendent/Non-Teaching Staff Representative.
6. Industry Representative-Alumni Association Member.

The Go-Green Campus Program's Role:

The initiative for a successful Green Campus must start at the top and spread throughout the campus. Well-intentioned efforts may be too fragmented to allow for Institute-wide engagement without a strong message of commitment and involvement from both the Chairperson and Members of the Committee. As a result, the committee will plan and implement the following:

- Assess the campus's environmental consequences to determine where changes can be made.
- Connect Green-Campus initiatives to Institute academics.
- Create awareness programmes for students, educators, and the general public.
- Create a strategy plan and student teams to carry out particular strategic responsibilities.
- A plan to save energy at the institute level, for example, with a time-bound plan to install Solar Power Stations are required to be installed either on top of the Institute building or in an open field.
- CFLs and traditional light sources such as bulbs and tube lights, halogen and mercury street/campus lights are being phased out in favour of LEDs.
- Conduct an environmental, energy, and green audit.



Laureate Institute of Pharmacy

Phone : 9218428040
9218405087

Approved by PCI & AICTE, New Delhi and H.P. Govt., Affiliated to H.P. Technical University,
H.P. Takniki Shiksha Board, & Recognized Under 2(f) of UGC Act 1956

Ref. No. 19PH.2022/EST-5516-I

Date 22/03/2022

- Evaluate everyday operations for pollution avoidance, waste stream management, and energy efficiency by reducing, reusing, recycling, and repairing as much as feasible.
- Obtain an assurance from those in authority up front that well-founded suggestions will be implemented after the audits are done.

Promotion of "Save Energy Tips" inside the Institute:

Enable power management capabilities on your computer and monitor so that when you are not using it, it goes into a low-power "sleep" mode.

- When you leave your Table, turn off your monitor.
- Shut down instead of logging off whenever possible.
- Turn off unnecessary lights and replace them with natural light.
- Use attractive lights sparingly.
- Use LED or compact fluorescent bulbs instead of incandescent lamps.
- When conference rooms, classrooms, and lecture halls are not in use, turn off the AC and light switches.
- Use the fans only when they're absolutely necessary.
- Unplug all appliances that are plugged into power strips (such as smart screens, refrigerators, air conditioners, tea/coffeepots, printers and Lap top chargers).

Waste water management/rainwater harvesting: The Institute is focusing on waste water management, notably in student residences. Low-flow toilets, water flow restrictors on bathroom faucets and showers. To save water on campus, automated urinal flushers should be employed. The Institute will make a decision. Taking the required steps to adopt waste water management and rainwater harvesting.



Phone : 9218428040
9218405087

Laureate Institute of Pharmacy

Approved by PCI & AICTE, New Delhi and H.P. Govt., Affiliated to H.P. Technical University,
H.P. Takniki Shiksha Board, & Recognized Under 2(f) of UGC Act 1956

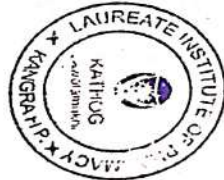
Ref. No.19.PK.2022/EST-5516-I


Date ...22/03/2022...

Major Green Campus Initiatives:

- Solar Power Station Installation
- Install the Sewage Water Treatment Plant
- Constructed and design Waste water management/rainwater harvesting system
- E-waste Management poster.
- Plastic-free campus; tree-planting drive; cleanliness drive; landscaping and gardens; LED-only lighting.
- Green, environmental, and energy audits were carried out.
- Automobile entry is restricted, and No Vehicle Day is observed.

The Institute will make all necessary steps to engage students, professors, and staff in "Green Campus Initiatives" by designating NSS cadets with printing Caps.

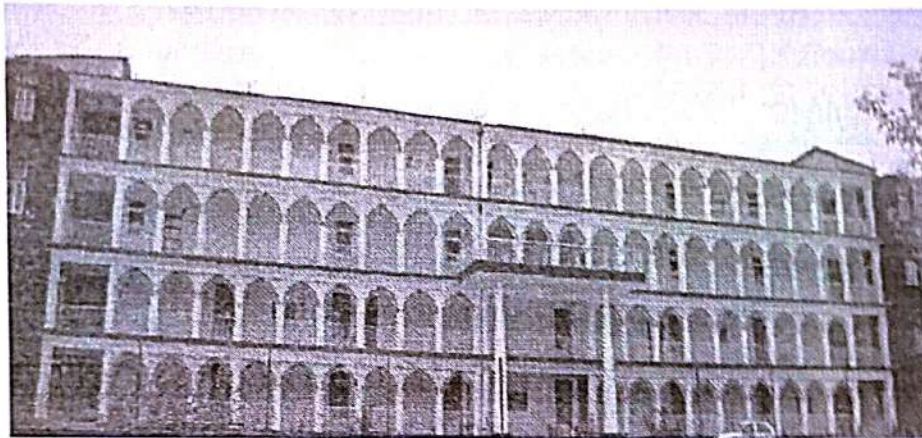



DIRECTOR CUM PRINCIPAL
LAUREATE INSTITUTE
OF PHARMACY, KATHOG
TEH. JAWALAMUKHI
DISTT. KANGRA (H.P.)

V.P.O. Kathog, Tehsil Jawalamukhi, Distt. Kangra, H.P. - 176031
Web: www.laureateinstitute.in | e-mail: contactlaureate@gmail.com

1. Green/ Audit

**GREEN AUDIT REPORT
FOR
Laureate Institute Of Pharmacy
SH 22, Village and Post Office Kathog,
Himachal Pradesh 177101**



**Carried For
For Year 2022**

Carried Out By

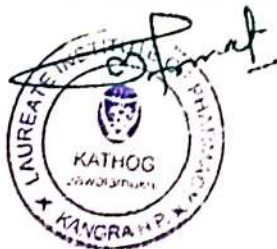


**ELION TECHNOLOGIES & CONSULTING PVT LTD
307, 3rd Floor Local Shopping Centre, Lal Market,
H Block, Vikas Puri, New Delhi - 110018
Tel: +91-11-28531884, +91-11-28541888
Web: www.elion.co.in, Email: safety@elion.co.in**



CONTENTS

Sr. No.	Topic	Page No.
1	Introduction	3
2	Environmental setting	6
3	Green Audit	8
3.1	Good Daylight Design and Ventilation	8
3.2	Water Efficiency	9
3.3	Wastewater Management	10
3.4	Indoor Air Quality	10
3.5	Energy Efficiency	11
3.6	Onsite Energy Generation	12
3.7	Temperature and Acoustic Control	12
3.8	Paper Waste Management	13
3.9	E-waste Management	13
3.10	Solid Waste Management	13
3.11	Universal Access and Efficient Operation & Maintenance of Building	14
3.12	Green Belt/ Landscaping	15
3.13	Green Initiatives taken up by Institute	15
4	Recommendations / Suggestions	16
4.1	Improving energy consumption	16
4.2	Water conservation	17
4.3	Paper and other waste reduction	17
4.4	Other	18
	Annexure 1: Indoor Gardening Details	19
	Annexure 2: Green Audit Checklist	22



1. INTRODUCTION

Laureate Institute of Pharmacy, (H.P. Tech. Uni Off Campus Research Center) Which has been started in year 2007 with a vision to nurture talent into all round excellence by providing an educational experience which is intellectually inspiring and technologically innovative and produce not just professionals but visionaries of tomorrow. This ISO certified and IAO accredited Institute now running B. Pharmacy programme and Post Graduate courses (M. Pharmacy programme in Pharmaceutics and Pharmaceutical analysis and quality assurance) D. Pharmacy, B.Pharmacy Practice, Ph.D. (H.P.Tech. Uni. Off Campus Research Center). The Institute is duly approved by PCI, AICTE and is affiliated to Himachal Pradesh Technical University, Hamirpur as well as recognised by University Grant Commission, New Delhi; under section 2(f) of UGC Act 1956. The institute is located in untamed rural area, while serving excellent education to the moderate economical strata of the society against all odds of natural calamities present in hilly areas of Himachal Pradesh. Institute also works for social activities under National Service Scheme. Institute has sample infrastructure for the new research dimensions including analysis and assessment of drugs, medicines and herbal formulations quality and has state of art laboratories which are well equipped with sophisticated and other amenities.

Laureate Institute of pharmacy has been recognised as one of the best pharmacy college in the region. Institute of pharmacy emphasizes on 360 development of its students. It aims to to promote research in highly emerging technology and thrust areas of medicines and human healthcare and contribute towards fulfilling's the national objectives in pharmaceutical education and technology.

Our objective is to generate high quality scientific information in the field of Pharmaceutical technology including targeted and smart drug delivery systems. The aim is to develop the various conventional and Novel dosage forms along with their standardization for the benefits of the pharmaceutical industry in the order to provide technology transfer. Our target is to propagative industry based research in the areas of formulation and development of Novel Drug delivery systems and preclinical toxicity studies pharmacokinetics and drug metabolism studies.

Elion Technologies and Consulting Pvt Ltd (Elion) team carried out audit of premises. During the audit Elion team carried out visit of entire campus i.e.





classrooms, library, washrooms, staff rooms, administration department, accounts department and hostels.

Campus Information

The college is offering courses in following fields:

- D. Pharm.
- B. Pharm.
- M. Pharm. (Pharmaceutics, Pharm QA & QC and Pharmacology)
- PhD in Pharmaceutical sciences

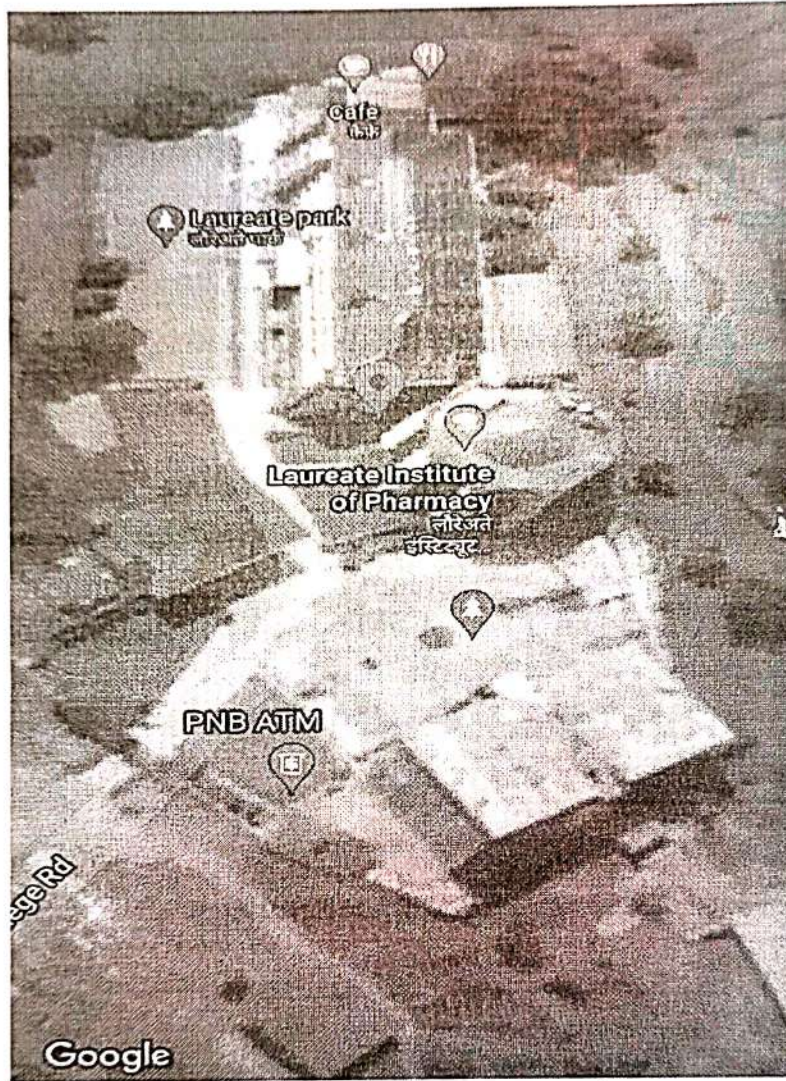
Details of the infrastructure of Laureate Institute of Pharmacy is as per below:

Building Name	Number of Floors
Administrative Block cum Girls hostel	5
Academic Block A	5
Academic Block B	5
Canteen	1
Administrative residency	3



2. ENVIRONMENTAL SETTING

The land use around the campus is mainly mix of residential and commercial area. There are Temples, Hotels and residential area nearby.



Laureate Institute of Pharmacy Campus





Location of Laureate Institute of Pharmacy Campus



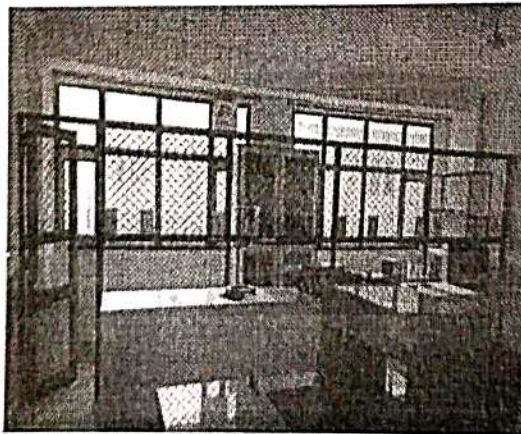
3. GREEN AUDIT

For Green Audit following 13 major areas (including their subsections) were covered and compliance/ initiatives under these areas were verified/ validated.

- a) Good Daylight Design and Ventilation
- b) Water Efficiency
- c) Wastewater Management
- d) Indoor Air Quality
- e) Energy Efficiency
- f) On-site Energy Generation
- g) Temperature and Acoustic Control
- h) Paper Waste Management
- i) E-Waste Management
- j) Canteen and Solid Waste Management
- k) Universal Access and Efficient Operation and Maintenance of Building
- l) Green Belt
- m) Green Programs (Green initiatives)

3.1 Good Daylight Design and Ventilation

- a) Corridors are wide with good ceiling height. All the corridors receive good daylight.
- b) Curtains are provided on some of the windows to avoid glare.
- c) Laboratories are provided with exhaust fans to disperse heat, fumes and odours.
- d) Stair cases receive daylight through windows provided at various levels.
- e) Classrooms, Labs and Library have large windows. Windows are kept open to adequate daylight.

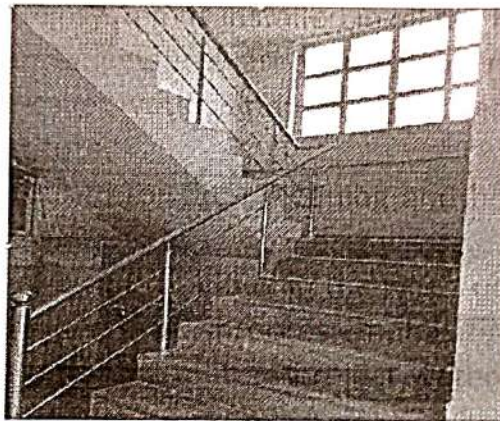


Daylight in Labs





Daylight in Classrooms



Main staircase which receives daylight

3.2 Water Efficiency:

- a) Bore well is used for water supply in the campus.
- b) For drinking water coolers are installed at various location in the campus.
- c) Rain water harvesting system is installed in all the blocks.
- d) Water conservation faucets in washrooms were not seen. Installation of such faucets can save water and will help in minimizing the water footprint of the institute.
- e) Normally mops are used for floor cleaning and hose is used for cleaning once a week
- f) Dual flushing system is not provided in the washrooms.
- g) Signage are not provided in washrooms emphasizing water conservation.
- h) Water from air conditioning unit and reject water from water purifiers is reused within the institute.
- i) Water coolers & purifiers are installed at drinking water supply points.



3.3 Wastewater Management:

- a) Sewage Treatment plant is present in the campus area.
- b) The treated water of STP is used in the garden area.

3.4 Indoor Air Quality:

Indoor Air Quality (IAQ) refers to the air quality within and around buildings and structures, as it relates to the health and comfort of building occupants.

Some common indoor pollutant are listed as below:

- Molds and other allergens – This may arise from water seeping into the building envelope or skin, plumbing leaks, condensation due to improper ventilation, or from ground moisture penetrating a building part.
- Volatile organic compounds (VOCs) – VOCs are emitted by paints and lacquers, paint strippers, pesticides, office equipment such as copiers and printers, correction fluids and carbonless copy paper, graphics and craft materials including glues and adhesives, permanent markers, and photographic solutions etc.
- Carbon monoxide – Sources of carbon monoxide are incomplete combustion of fossil fuels.
- Carbon dioxide – Due to human respiration
- Particulate matter – Due to construction and maintenance activities

Major observations under indoor air quality are as below:

- a) In classrooms the mode of ventilation is natural (through windows) and is enhanced by fans.
- b) Green belts have been set up in campus area.
- c) Heating Ventilation and Air Conditioning (HVAC) system does not exist.
- d) Indoor plants are seen in the College. Indoor plants can be plotted not only for the aesthetic appearance but also for health benefits. Refer **Annexure 1** for details.
- e) Exhaust fans are provided only in labs and washroom.
- f) IAQ awareness signage was missing in College. Information on sources, impacts and mitigation of indoor air pollution to be displayed within College for increasing awareness about indoor air pollution.
- g) Indoor Air Quality tests have been carried out. Same needs to be carried out at least once a year.



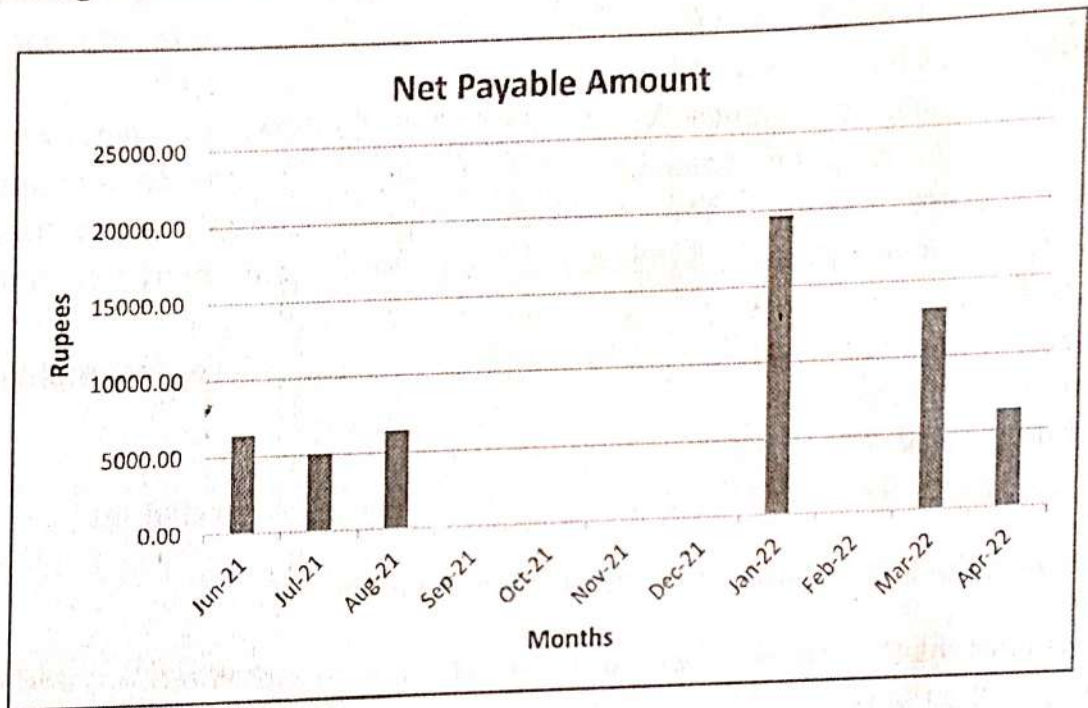


3.5 Energy Efficiency:

Electricity:

Power is supplied by local electricity department. The major electricity consuming equipment installed in the campus are Motors, Desktop, Printer, Fan, Tube light, LED Bulb and Street Lights.

Following is details of energy consumption



It was observed that:

- a) LED tube lights & fans are installed in classrooms and labs. CFL and conventional tube lights are also used. College is in the process of replacing periodically the dysfunctional conventional tube lights with LED lights.
- b) Solar Power Plant of 20 KVA is installed in the campus.
- c) Solar Water Heating System is also available in the college.

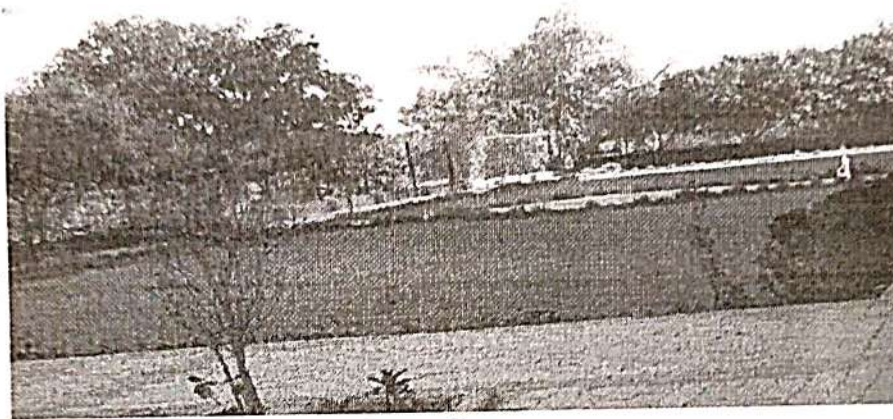
3.6 On Site Energy Generation (usage of LPG/ Natural Gas):

- a) LPG is used in canteen for cooking.
- b) Back Up diesel generators are available.
- c) Solar Power plant of capacity 20KVA is provided in the college.

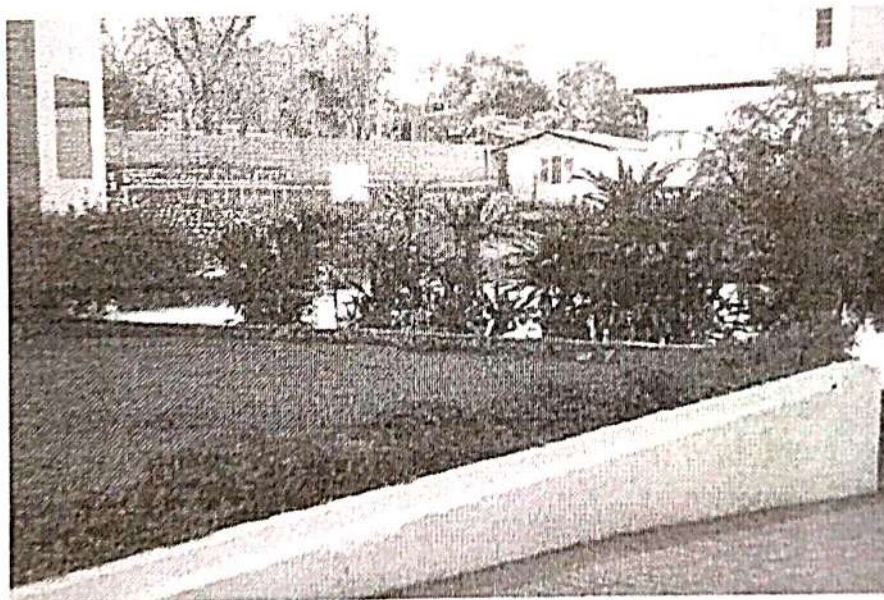


3.7 Temperature and Acoustic Control

- a) White washed rooms & corridors and white/ off-white flooring improve the lighting conditions.
- b) The entire campus has green area.
- c) There is no noise pollution in the campus.



Green Campus



Green Campus

3.8 Paper Waste Management:

Being academic institution, waste paper is the main solid waste generated in the premises. The College has taken steps to minimize and avoid paper usage.





It was observed that:

- a) Prints and photocopies are taken on both sides of the pages to avoid excess paper usage. Rather than photocopy, digitalization (scanning) is practiced.
- b) Faculty and administration staff uses old papers and envelopes for internal usages as rough work, file markers, page separators etc.
- c) Paper notices are displayed on the notice boards. Most of the storage is in library and staff room. After couple of years, old submissions and answer papers will be archived and stored in record room.
- d) Internal notices and communications are through E-mail/SMS.
- e) Old Papers are given to vendors for recycling.

3.9 E-Waste Management:

- a) The campus is digitalized to a large extent. This includes classrooms, library, internal mails etc.
- b) E-waste is collected and stored in respective department. Once in a year this e-waste is collected from respective department and given to vendor.

3.10 Solid Waste Management:

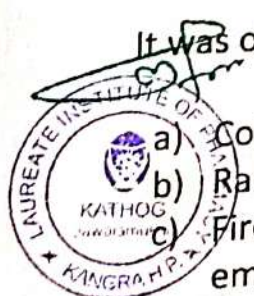
It was observed that:

- a) Wet waste and dry waste segregation is practiced in the premises. Separate bins are provided for wet biodegradable and dry recyclable waste.
- b) The waste generated is collected by the municipal corporation and disposed off.

3.11 Universal Access and Efficient Operation and Maintenance of Building:

It was observed that:

- a) College is easily accessible. Staircase is provided for staff and students.
- b) Ramps are provided for specially abled.
- c) Fire extinguishers and fire hydrants are provided in major areas for emergency. They are inspected and serviced regularly.
- d) There is signages for emergency fire exit present. This is of crucial



importance during emergency.

- e) Since the access and staircases are wide and uncluttered, it is possible to have a safe evacuation during emergency.
- f) Fire Safety Training is given to the staff regularly.

3.12 Green belt/ Landscaping:

- a) Large trees are planted in the premises. Plantation also helps maintaining lower temperatures of the area. .
- b) Potted plants are also kept around the campus.
- c) Indoor plants are kept along the corridors and entrance of the building.

3.13 Green Initiatives:

College is regularly celebrating Environment Day, Yoga Day and Earth Day and other Cultural programs.

[Handwritten Signature]





4. RECOMMENDATIONS/ SUGGESTIONS

4.1 For Improving Energy Consumption:

- a) Every classroom and lab with central switch board can have a diagram linking location of a tube light, fan etc. with corresponding switch. This will ensure that correct fitting is switched on/ off and can save time & unnecessary operation.
- b) Installation of automatic lights with sensors can be considered.
- c) Standard Operation Procedures (SOPs) should be prepared and followed for green purchasing. Equipment with star rating, using eco-friendly materials; with safe disposal policy to be preferred. Policy of returning equipment at the end of life span to the supplier to be preferred.
- d) Conduct energy audit every two or three years and determine the lux levels within College. Energy audit can help in reduction in number of light fittings/ energy usage in the College.
- e) For purchasing new electronic appliances, star rating provided by Bureau of Energy Efficiency (BEE) should be considered. The equipment which has maximum star ratings could be purchased, which will consume less energy, ensure environmental sustainability and also operate at low cost.
- f) Usage of light reflectors is recommended as the reflectors can spread light to relatively large areas.
- g) Notices/ signages can be put up/ displayed near switches and on notice boards, informing students and staff to switch off all electricals when not in use.
- h) If possible, computers should be switched off from main power connections.
- i) Control sensors can help to reduce consumption by automatically dimming lights when people are not around, and keeping blinds open to use natural light & reduce energy consumption.
- j) Raise awareness:
 - Encourage students to help in monitoring energy consumption & implement corrective actions
 - Integrate energy education into classroom learning.



4.2 Water Conservation:

- a) Provide information on water usage and savings to students/ staff through notices, screen savers in computer labs.
- b) Dry sweep or use a sponge broom when possible, instead of using a hose to clean floors, sidewalks, or other hard surfaces.
- c) Minimize/ reduce water usage by installing water saving faucets such as pressmatic taps, tap aerators, jet sprays etc.
- d) Grey water/ sewage recycling system can be installed for flushing toilets. This will reduce the fresh water footprint.
- e) Installation of waterless urinals can be considered to reduce water consumption.
- f) Water balance diagram can be prepared to quantify the water consumption by installing water meters at key points. Based on data gathered, appropriate measures can be taken to reduce the water consumption.

4.3 Paper and other Solid Waste Reduction:

- a) Inventories of all solid waste generated in the premises must be maintained.
- b) Enhance recycling. This can be done by creating a group where students can recycle books, personal clothes and other material to needy students. This can be an initiative under green program.
- c) Standard Operating Procedures (SOP) for Solid and E-waste management and for recycling of waste should be prepared & practiced. The SOP's may include collection, segregation and reuse of different types of wastes, if any (e.g. biodegradable waste for composting). This will help in safe disposal of waste to recycle agencies.
- d) The college can introduce online app, which can be useful for conducting internal exams, assignment/ reports submission. This system can also be used for displaying important notices, timetables.
- e) Paper usage shall be monitored to understand the impact of digitization in the facility.
- f) Training as well as awareness programs should be organized on segregation of biodegradable waste and recycling of waste. Efforts should be taken to inform students about recycling options and signs should be posted on appropriate bins indicating what could be dumped in each bin.









4.4 Others:

- a) Environmental advisory committee could be formed. The discussions/ information sharing among different departments can generate lot of ideas and awareness on green issues.
- b) Since each student uses computer lab, the screen savers can be set up for creating environmental awareness. (Ergonomics, water conservation etc.). Short 30 second pop up can be displayed on computer screens when they are on standby mode. Or wallpapers informing students about environment conservation can be created.
- c) Maintain minutes of meetings of environmental committees; evaluate the effectiveness of various environmental programs conducted by the institutes. Set annual targets for Green Initiatives & monitor them closely. Create 'Green Champions'.
- d) Consider detailed energy audit (energy consumption, thermal emission, visual comfort) and water audit.
- e) Adopt environmentally responsible purchasing policy, and work towards creating and implementing a strategy to reduce environmental impact of its purchasing decision.







ANNEXURE 1 INDOOR GARDENING DETAILS

Indoor plants are commonly used for their aesthetics benefits but they also have vital role reducing airborne pollution. The right choice of plants can be an excellent way of improving indoor air quality and general health. Local landscape contractor can be contacted for supply and rotation of these plants.


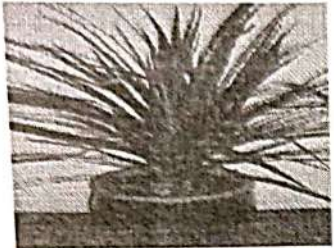


Plants	VOC it removes	Indoor source of VOC's	Plant care
 Aloe Vera	Formaldehyde, Trichloroethylene and Benzene	Chemical based cleaners and paints	Easy to grow with enough sunlight
 Bamboo Plant	Formaldehyde, Trichloroethylene and Benzene	Paints, Plastics, Wood products etc.	Thrives under low light conditions as well as easy to maintain
 Chinese Evergreen	Benzene	Paints	Low maintenance plant that prefers low light conditions.
 English Ivy	Formaldehyde, Benzene, Air borne fecal matter particles	Wood, Paper products, Air borne fecal – matter particles from pests	Easy to maintain





 Janet Craig	Formaldehyde, Benzene and Trichloroethylene	Paints, Plastics, Wood products etc.	Medium to low light tolerant plant. Requires little water for growth.
 Golden Pothos or Devils Ivy	Formaldehyde, Cleanses air	Exhaust fumes, carpeting materials, panelling and furniture products made with particle board	Extremely easy to maintain under low to bright light conditions. Fast growing and grows well under Fluorescent light.
 Mass Cane	Formaldehyde, benzene and trichloroethylene	Paints, Plastics, Wood products etc.	Medium to low light tolerant plant. Requires little water for growth.
 Snake plant	Formaldehyde and trichloroethylene	cooking fuels, wood products, facial tissues, personal care products and waxed papers	Drought resistant and Tolerates a variety Of light conditions. Hard to damage or kill.



 <p>Peace Lily</p>	<p>Formaldehyde, benzene and trichloroethylene</p>	<p>Paints, Plastics, Wood products etc.</p>	<p>Relatively easy to maintain. Survives in low light conditions.</p>
 <p>Red-edged Dracaena</p>	<p>Formaldehyde and trichloroethylene</p>	<p>cooking fuels, wood products, facial tissues, personal care products and waxed papers</p>	<p>Drought resistant and Tolerates a variety of light conditions. Hard to damage or kill.</p>
 <p>Spider Plant</p>	<p>Formaldehyde, benzene, carbon monoxide and xylene</p>	<p>cooking fuels, wood products, Printing</p>	<p>Easy to maintain under medium to bright light condition.</p>
 <p>Parlor Palm</p>	<p>Purifies indoor air</p>	<p>-</p>	<p>Easy to maintain</p>

[Handwritten Signature]

LAUREATE INSTITUTE OF PHARMACY
 KATHOG
 KANGRAH P. A. ROAD



ANNEXURE 2 GREEN AUDIT CHECKLIST

Good Daylight Design

Sr. No.	Design Feature	
1	Broad door opening	<input checked="" type="checkbox"/>
2	Clerestory/ High windows	<input checked="" type="checkbox"/>
3	Openings at the eastern and southern side	<input checked="" type="checkbox"/>
4	Rectangular building so that sunlight can reach all areas	<input checked="" type="checkbox"/>
5	Sunshade	-
6	Double or triple glazing on windows	-
7	Enough illumination	<input checked="" type="checkbox"/>
8	Light coloured fabric curtain or blind for window covering	<input checked="" type="checkbox"/>
9	Operable/ openable windows	<input checked="" type="checkbox"/>
10	Ultraviolet (UV) filtering windows	-
11	Use of exterior louvers to control glare	-
12	Use of glass as facilitator of natural light	<input checked="" type="checkbox"/>
13	Use of insulated and tinted glass to filter heat gain	-

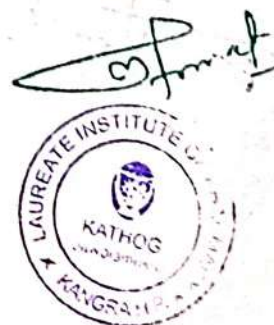
Ventilation

Sr. No.	Design Feature	
1	Downdraft cooling system (a downward flow of air)	-
2	Ceiling height	<input checked="" type="checkbox"/>
3	Self-movement ventilators in the roof	-
4	Wide corridors	<input checked="" type="checkbox"/>
5	Operable windows	<input checked="" type="checkbox"/>
6	Use of exhaust fans	<input checked="" type="checkbox"/>



Temperature and Acoustic Control

Sr. No.	Design Feature	
1	Double roof	-
2	Earth air tunnel (cools air in summer and heat it in winter)	-
3	Green roof	-
4	Mud roof	-
5	Openings at the eastern and southern side	<input checked="" type="checkbox"/>
6	Roof with reflective tile/aluminium/asbestos	-
7	Sand stone cladding outside the walls	<input checked="" type="checkbox"/>
8	Special walls for temperature control (Thick/Double/cavity/fire/composite /green)	-
9	Use of cool roofing material (mineral wool, rock wool, vermiculite, foams, expanded polystyrene, extruded polystyrene etc.)	-
10	Use of daylight design (Building is constructed in such a way that diffused sunlight allows light but not the heat)	<input checked="" type="checkbox"/>
11	Use of insulation material (e.g. autoclaved aerated blocks, hollow blocks, Thermocrete or higher R- value material)	-
12	Use of water bodies/fountain	-
13	Climbing creepers fitted to window in summer	-
14	Lime coating for cool roof	-
15	Retrofitting the existing roofs with cool roof technology	-
16	White wash on the roof	<input checked="" type="checkbox"/>
17	Use of landscaping as sound barrier	-





Water Efficiency & Wastewater Management.

Sr. No.	Measures	
1	Aerators to water taps	-
2	Automatic toilet faucets	-
3	Drip irrigation (for plant watering system)	-
4	Dual flush toilet with cistern	-
5	Efficient plumbing system	<input checked="" type="checkbox"/>
6	Sewage treatment plant for sewage recycle	<input checked="" type="checkbox"/>
7	Rainwater harvesting	<input checked="" type="checkbox"/>
8	Regular maintenance for leakage free plumbing system	<input checked="" type="checkbox"/>
9	Use of low flow/flow control water equipment or gadget	-
10	Water free urinals (No flush urinals/Zero flush urinals/Water less urinals/air based flushing system these save water used in toilet)	-

Energy Efficiency and On-site Energy Generation Mechanism

Sr. No.	Measures	
1	Avoid excessive lighting	<input checked="" type="checkbox"/>
2	Computerized monitoring of electrical system	-
3	Integrated energy saving design for natural cooling/heating	<input checked="" type="checkbox"/>
4	On-site energy generation	<input checked="" type="checkbox"/>
5	Photocell occupancy sensor for automatic light control	-
6	Regular maintenance of electrical system	<input checked="" type="checkbox"/>
7	Use of day lighting system	<input checked="" type="checkbox"/>
8	Use of energy efficient equipment	<input checked="" type="checkbox"/>
9	Use of energy saving bulbs (Compact florescent light/LED lights)	<input checked="" type="checkbox"/>
10	Solar panel	<input checked="" type="checkbox"/>



Sustainable Material for Building and Interior

Sr. No.	Strategy adopted	
1	Use of biodegradable material	<input checked="" type="checkbox"/>
2	Use of locally sourced material	<input checked="" type="checkbox"/>
3	Use of material with low embedded energy(i.e. stabilized earth blocks, straw bales, stones, sand stone chips, fly ash)	<input checked="" type="checkbox"/>
4	Use of nontoxic recycled content material and furniture	<input checked="" type="checkbox"/>
5	Use of post-consumer recycled material	<input checked="" type="checkbox"/>
6	Use of salvaged (Discarded or refused) material	<input checked="" type="checkbox"/>
7	Use of material which can recycled at end of useful life	<input checked="" type="checkbox"/>
8	Use of material which is simple to install without dangerous adhesive	<input checked="" type="checkbox"/>





Waste Management

Sr. No.	Measures	
1	Sale of books to its user for minimal charges	-
2	Sale of books to store or other library	-
3	Sale of weeded books to needy students	-
4	Send books and used papers to recycling organization	<input checked="" type="checkbox"/>
5	Avoid use of paper by going digital (Paper)	<input checked="" type="checkbox"/>
6	Lessen the margins while printing	<input checked="" type="checkbox"/>
7	Printing on both sides of paper	<input checked="" type="checkbox"/>
8	Reuse of printed paper/ envelops	<input checked="" type="checkbox"/>
9	Segregation of dry and wet waste	<input checked="" type="checkbox"/>
10	Setting up recycling area/ composting area	<input checked="" type="checkbox"/>
11	Creation of specified junctions for collection of E-waste(E-waste)	-
12	Donation of computers to NGO's to refurbish and give it to needy people	-
13	Hand over to organization or recycler who knows proper disposal system	<input checked="" type="checkbox"/>
14	Implementation of any recycling project or program	-
15	Purchase of electronic products from company's which have after sales service for the disposal of product with buyback policy	<input checked="" type="checkbox"/>
16	Installation of bins to collect garbage	<input checked="" type="checkbox"/>
17	Outsourcing recycling of garbage to agency	-
18	Recreating in to new sustainable products	<input checked="" type="checkbox"/>
19	Use of coloured bins with code to collect garbage	<input checked="" type="checkbox"/>

Environmental Audit

Sr. No.	Type of audit	
1	Energy audit (includes energy consumption, thermal comfort, visual comfort)	<input checked="" type="checkbox"/>
2	Sound/ Noise audit (includes indoor noise level, outdoor noise level)	-
3	Water and waste audit (includes water quality, solid waste generation, solid waste disposal process)	-



Universal Access and Efficient Operation and Maintenance of Building

Sr. No.	Design feature	
1	Easy access to the main entrance of the building	<input checked="" type="checkbox"/>
2	Elevator	<input checked="" type="checkbox"/>
3	Preferred car park spaces for specially abled	<input checked="" type="checkbox"/>
4	Ramp/ stairs with handrails on at least one side	<input checked="" type="checkbox"/>
5	Restrooms (toilets) in common areas	<input checked="" type="checkbox"/>
6	Uniformity in floor level	-
7	Audio guidance for specially abled	-
8	Availability of wheel chair	-
9	Braille assistance for specially abled	<input checked="" type="checkbox"/>
10	Personalized services by staff for differently abled	-
11	Visual warning signage in common and exterior areas	<input checked="" type="checkbox"/>
12	Follow standard procedures for commissioning of electrical/plumbing system	<input checked="" type="checkbox"/>
13	Purchase of standardized and quality material for repair	<input checked="" type="checkbox"/>
14	Regular maintenance of building	<input checked="" type="checkbox"/>
15	Use of chemical free products for cleaning	<input checked="" type="checkbox"/>
16	User awareness program to minimize damage of property	<input checked="" type="checkbox"/>



**Green Program**

Sr. No.	Green program	
1	Buying recycled material	<input checked="" type="checkbox"/>
2	Creation of "Green Team" in the institution/library	-
3	Green education i.e. to become leader in environmental awareness	-
4	College conduct graduate program by library science/Any other department	<input checked="" type="checkbox"/>
5	Outreach relationships with local groups interested in environmental concern and satisfy their information needs	<input checked="" type="checkbox"/>
6	Providing external membership to small and local libraries (MOU with other colleges, -internal collegiate library loan)	-
7	Recycling beyond books i.e. paper, aluminum, plastic, e-waste	<input checked="" type="checkbox"/>
8	Reduce, Reuse and recycle of the products (At the time of disposal of library material)	<input checked="" type="checkbox"/>
9	Regular purchase of books/ magazines related to sustainability	<input checked="" type="checkbox"/>
10	Selection of material content of which informs and assesses green practices (green computing, energy conservation, organic gardening etc.)	<input checked="" type="checkbox"/>
11	Contribute library information on sustainability resources to a campus publication, blog or website	<input checked="" type="checkbox"/>
12	Creation of topical online resource guide (on sustainability etc.)	<input checked="" type="checkbox"/>
13	Disseminating expert advice about sustainability to other colleges to make their own college greener	-
14	E Publishing reviews of new green resources in the newsletter or news	-
15	Digitization	<input checked="" type="checkbox"/>
16	E-archiving	-
17	E-resources : E books, Online Journals, membership of consortium	-
18	Subscription to databases	-

 - Provided

P - Planned



Elion Technologies & Consulting Pvt Ltd

Certificate

This is to certify that Green Audit at Laureate Institute of Pharmacy SH 22, Village and Post Office Kathog, Himachal Pradesh 177101 was carried out for academic year 2022.

College has submitted necessary data and credentials for scrutiny. The activities and measures carried out by the college have been verified. The efforts taken by the college towards environment and sustainability is highly appreciated and commendable.

VALID TILL
27th April, 2023

Audit Officer

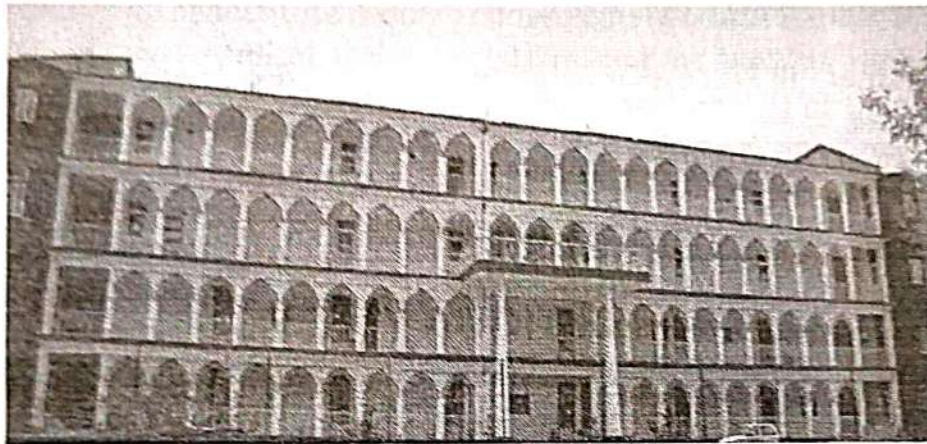


Certificate Number
GA /2022/LIP



2. Energy Audit

**ENERGY AUDIT REPORT
FOR
Laureate Institute of Pharmacy
SH 22, Village and Post Office Kathog,
Himachal Pradesh 177101**



**Carried For
For Year 2022**

Carried Out By



ELION TECHNOLOGIES & CONSULTING PVT LTD

307, 3rd Floor Local Shopping Centre, Lal Market,

H Block, Vikas Puri, New Delhi - 110018

Tel: +91-11-28531884, +91-11-28541883

Web: www.elion.co.in, Email: safety@elion.co.in

Handwritten signature





INDEX

S No.	Description	Page No.
1	Executive Summary	2
2	Chapter - I Introduction	4
3	Chapter - II Acknowledgement	6
4	Chapter - III Process Description & Energy Consumption Details	7
5	Chapter - IV Lighting System	10
6	Chapter - V Motors and Pumps	11
7	Chapter - VI Air Conditioning	12
8	Conclusion	14



EXECUTIVE SUMMARY

Laureate Institute of Pharmacy, (H.P. Tech. Uni Off Campus Research Center) Which has been started in year 2007 with a vision to nurture talent into all round excellence by providing an educational experience which is intellectually inspiring and technologically innovative and produce not just professionals but visionaries of tomorrow. This ISO certified and IAO accredited Institute now running B. Pharmacy programme and Post Graduate courses (M. Pharmacy programme in Pharmaceutics and Pharmaceutical analysis and quality assurance) D. Pharmacy, B.Pharmacy Practice, Ph.D. (H.P.Tech. Uni. Off Campus Research Center). The Institute is duly approved by PCI, AICTE and is affiliated to Himachal Pradesh Technical University, Hamirpur as well as recognised by University Grant Commission, New Delhi; under section 2(f) of UGC Act 1956. The institute is located in untamed rural area, while serving excellent education to the moderate economical strata of the society against all odds of natural calamities present in hilly areas of Himachal Pradesh. Institute also works for social activities under National Service Scheme. Institute has sample infrastructure for the new research dimensions including analysis and assessment of drugs, medicines and herbal formulations quality and has state of art laboratories which are well equipped with sophisticated and other amenities.

Laureate Institute of pharmacy has been recognised as one of the best pharmacy college in the region. Institute of pharmacy emphasizes on 360 development of its students. It aims to to promote research in highly emerging technology and thrust areas of medicines and human healthcare and contribute towards fulfilling's the national objectives in pharmaceutical education and technology.

Our objective is to generate high quality scientific information in the field of Pharmaceutical technology including targeted and smart drug delivery systems. The aim is to develop the various conventional and Novel dosage forms along with their standardization for the benefits of the pharmaceutical industry in the order to provide technology transfer. Our target is to propagative industry based research in the areas of formulation and development of Novel Drug delivery systems and preclinical toxicity studies pharmacokinetics and drug metabolism studies.

Electricity is supplied by Himachal Pradesh State Electricity Board Limited and for backup powers supply DG Set of 62.5KVA is available.





Also solar power plant of capacity 20KVA is installed in the college.

Elion Technologies and Consulting Pvt Ltd team conducted the Detailed Remote Energy audit of the premises. The energy audit included detailed data collection, analysis of data and identification of specific energy saving proposals.



CHAPTER – I

INTRODUCTION

M/S Laureate Institute of Pharmacy, Himachal Pradesh evinced interest in availing the services of Elion Technologies and Consulting Pvt Ltd for conducting energy audit of their premises.

This report is on the energy audit carried out M/S Laureate Institute of Pharmacy, Himachal Pradesh. The detailed energy audit comprised of the following activities:

- Data collection of power consuming equipment's.
- A brief session on energy management was conducted to seek more inputs from the personnel engaged in operation and maintenance of electro mechanical services.
- Analysis of collected data.
- Discussion with the officials on the identified proposals.
- Discussion and reporting of the findings of energy audit with the Engineers and management staff.

All the identified energy savings proposals have been discussed with the executives concerned before finalizing the projects.

The contents of the report are based solely on the data provided by Laureate Institute of Pharmacy, Himachal Pradesh officials during the energy audit.

The management should implement the suggestions made in the report after verifying requisite safety aspects.

Methodology for Energy Audit:

The following is a list of general procedure and information undertaken during the energy audit:

1. General information of the campus.





2. Baseline energy description.
3. Past energy consumption bills which includes electricity bills.
4. On site data collection.
5. Energy analysis of different sectors.
6. Recommendation of energy conservation measures.

The primary goal of the energy audit was to identify sources and areas of potential energy savings and cost saving throughout the Plant by measures of optimization, replacement, retrofitting, and on the other hand, to also provide recommendations on operational and maintenance practices improvements.



CHAPTER – II

ACKNOWLEDGEMENT

Elion Technologies and Consulting Pvt Ltd places on record it's thanks to M/S Laureate Institute of Pharmacy, Himachal Pradesh for entrusting the task of conducting energy audit study.

We acknowledge with gratitude the whole hearted support and cooperation extended by all team members while carrying out the study.





CHAPTER – III

PROCESS DESCRIPTION & ENERGY CONSUMPTION DETAILS

PROCESS DESCRIPTION

The main areas of energy consumption as observed during the audit are as follows:

- Motors/Pumps.
- Air Conditioner.
- Lighting.

The main sources of energy to meet the required consumptions are as follows:

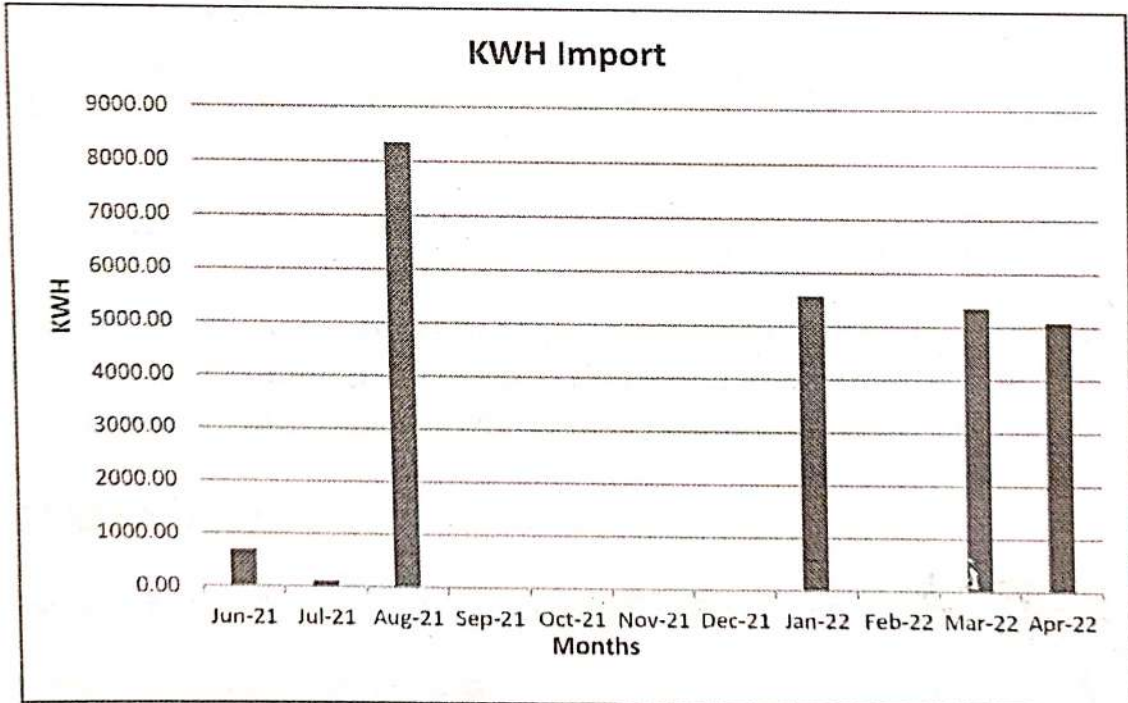
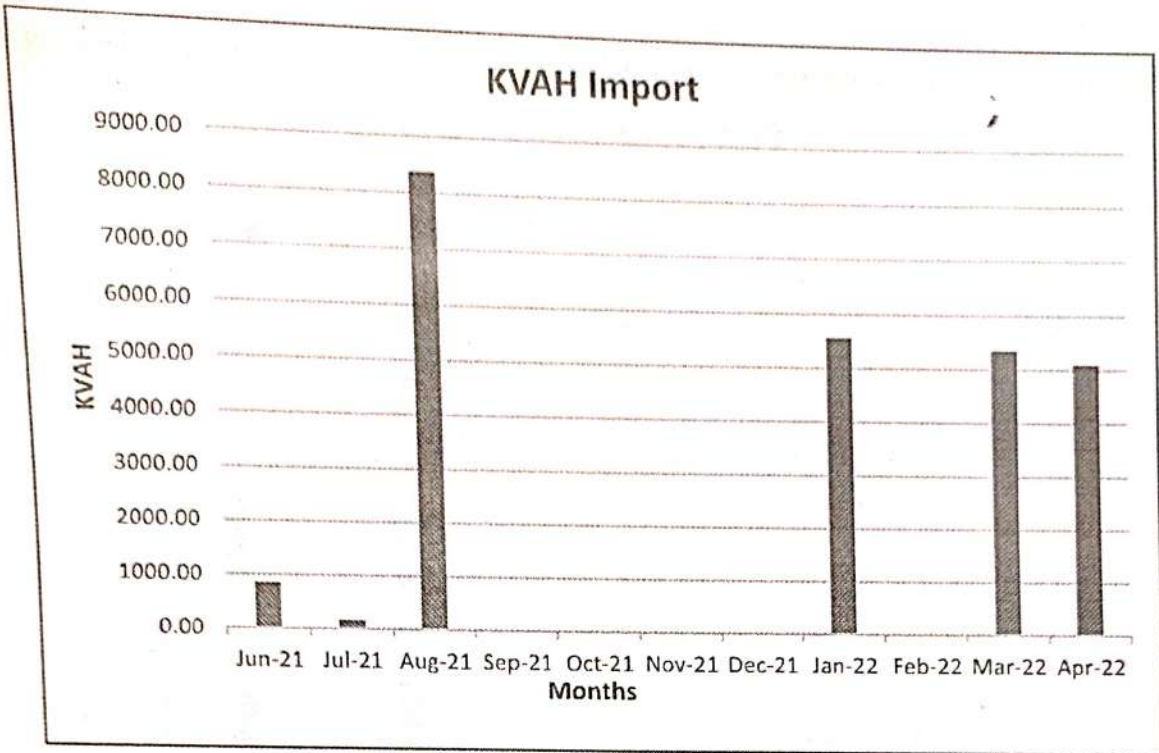
- Electricity supply from Power Distribution Company.
- DG set of 62.5KV.
- Solar Power Plant of 20KVA.

Consumption pattern for energy is given below:

ELECTRICITY CONSUMPTION PATTERN

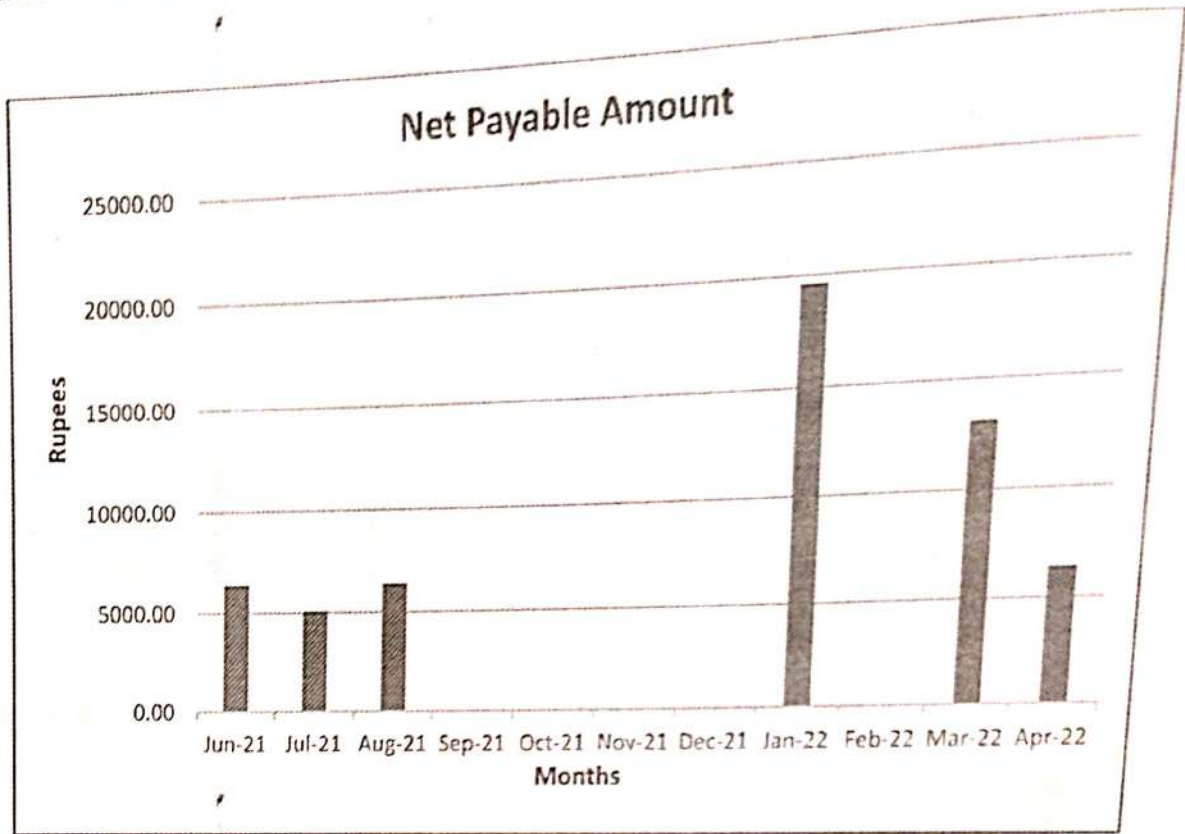
Months	KVAH Import	KVAH Export	KWH Import	KWH Export	Net Payable Amount
Jun-21	847.00	732.00	701.00	690.00	6410.00
Jul-21	171.00	1003.00	111.00	3025.00	5075.00
Aug-21	8368.00	8399.00	8345.00	8375.00	6410.00
Jan-22	5559.00	5559.00	5557.00	5558.00	19619.00
Mar-22	5346.00	5347.00	5347.00	5347.00	13110.00
Apr-22	5086.00	5085.00	5083.00	5083.00	6415.00





[Handwritten Signature]

LAUREATE INSTITUTE OF EDUCATION
KATHOG
KANGRA, HIMACHAL PRADESH



CHAPTER – IV LIGHTING SYSTEM

The inventory of lighting was collected and following is the summary:

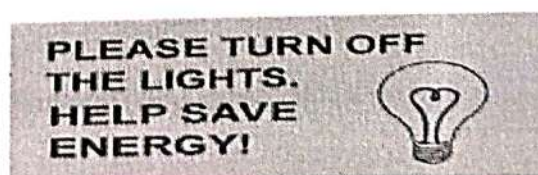
Type of Light	Location	Rating	Qty	Number of Hours being turned on
LED Bulb	Corridor of Academic Block-I	10W	20	2
LED Bulb	Class rooms and laboratory of Academic Block-I	10W	50	3
LED Bulb	Class rooms and laboratory of Academic Block-II	10W	48	3
LED Bulb	Outdoor	100W	6	6
LED Bulb	Administrative block cum girls hostel	10W	50	6
LED Bulb	Canteen	10W	10	5

Observation:

Most of the lighting used are LED. CFL and Tube light are being used in certain location. It was informed that college has planned to replace CFL and Tube light in phased manner with replacement of faulty lights with LED.

Recommendation:

- Sticker to SWITCH OFF LIGHT and SAVE ENERGY to be displayed.





CHAPTER – V MOTORS AND PUMPS

Pumps are used for pumping of water. The details of the pumps and motors are given below:

PUMPS:

- 5 HP – Submersible Pump 1 (Crompton).
- 5 HP – Submersible Pump 2 (Luby).

Observation:

All pumps and motors are functioning properly and well maintained.

Recommendation:

Proper maintenance and upkeep of pumps and motors to be done.



CHAPTER – VI

AIR CONDITIONING

Split and Window AC's are used in facility for air conditioning. Temperature maintained is 24°C - 26°C which is a good practice. Following is the summary of air conditioners installed:

Type Windows/Split/Package and Location	Capacity in Ton	Whether any star rating available	Set temperature	Running Hours	Whether AC performance is satisfactory Yes/No
Windows computer laboratory-I	1.5 (Two)	3	24	4	Yes
Windows Microbiology laboratory	1.5 (Two)	3	24	3	Yes
Windows conference hall	1.5 (Two)	3	24	2	Yes
Split conference hall	2 (Five)	5	24	2	Yes
Split Principal Chamber	1.5 (one)	3	24	3	Yes
Split vice Principal Chamber	1.5 (one)	3	24	3	Yes
Split Director/MD Chamber	1.5 (one)	5	24	3	Yes
Split computer laboratory-II	1.5 (one)	3	24	3	Yes
Administrative Residency	1.5 (Three)	3	24	3	Yes
Animal House	1.5 (one)	3	25	5	Yes

Observation:

All air conditioners are found to be functioning properly and well maintained.





Recommendation:

- All doors to be kept closed while using the air conditioner and regular annual services of AC should be carried out.
- Replacement of 3 Star ACs with 5 Star Inverter ACs in a phased manner should be implemented.



CONCLUSION

The energy audit conducted at M/S Laureate Institute of Pharmacy, Himachal Pradesh has revealed that campus is doing good work in having sustainable college. In house solar power plant and solar water heating system is installed. The college is sustainable in energy consumption. To further reduce energy consumption, college should implement the recommendation made in report.



Elion Technologies & Consulting Pvt Ltd

Certificate

This is to certify that Energy Audit at **Laureate Institute of Pharmacy SH 22, Village and Post Office Kathog, Himachal Pradesh 177101** was carried out for academic year 2022.

It is found that sustainable measure are taken by the college in reduction in energy consumption. The college is taking sustainable measure for reduction of its power consumption.

VALID TILL
27th April, 2023


Audit Officer

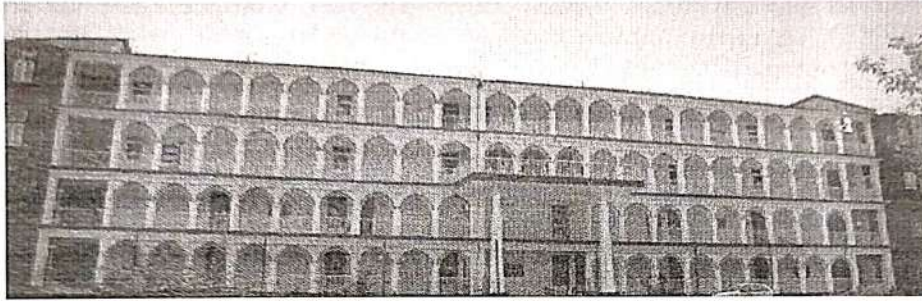


Certificate Number
EA/2022/LIP



3. Clean & Green Campus initiative

**ENVIRONMENT AUDIT REPORT
FOR
Laureate Institute Of Pharmacy
SH 22, Village and Post Office Kathog,
Himachal Pradesh 177101**



**Carried For
For Year 2022**

Carried Out By



**ELION TECHNOLOGIES & CONSULTING PVT LTD
307, 3rd Floor Local Shopping Centre, Lal Market,
H Block, Vikas Puri, New Delhi - 110018
Tel: +91-11-28531884, +91-11-28541888
Web: www.elion.co.in, Email: safety@elion.co.in**



[Handwritten signature]

**CONTENTS**

S. No.	Content	Page Number
		3
1	Acknowledgement	4
2	Concept	5
3	Introduction	6
4	Overview of Institute	8
5	Audit Objectives	9
6	Executive Summary	10
7	Area of Improvements	11
8	Environmental Audit - Questionnaire	13
9	Waste Minimization and Recycling	14
10	Greening	15
11	Energy Conservation	16
12	Water Conservation	17
13	Clean Air	18
14	Animal Welfare	19
15	Environmental Legislative	19
16	General Practices	21
17	Recommendation	22
18	Conclusion	23
19	Reference	23
20	Annexure – Photographs Of Environment Consciousness	25



ACKNOWLEDGEMENT

Elion Technologies and Consulting Pvt Ltd thanks the management of Laureate Institute of Pharmacy, Himachal Pradesh for assigning this important work of Environmental Audit. We appreciate the co-operation to our team for completion of study.

For giving us necessary inputs to carry out this very vital exercise of Environment Audit. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.





CONCEPT

The term 'Environmental audit' means differently to different people. Terms like 'assessment', 'survey' and 'review' are also used to describe similar activities. Furthermore, some organizations believe that an 'environmental audit' addresses only environmental matters, whereas others use the term to mean an audit of health, safety and environment-related matters. Although there is no universal definition of Environmental Audit, many leading companies/institutions follow the basic philosophy and approach summarized by the broad definition adopted by the International Chambers of Commerce (ICC) in its publication of Environmental Auditing (1989).

The ICC defines Environmental Auditing as:

"A management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organization, management and equipment are performing with the aim of safeguarding the environment and natural resources in its operations/projects."

The European Commission, in its proposed regulation on environmental auditing, has also adopted the ICC definition of Environmental Audit.



INTRODUCTION

A clean and healthy environment aids effective learning and provides a conducive learning environment. There are various efforts around the world to address environmental education issues.

Environmental Management Systems (EMS) is very popular in the industrial sector, but the general belief is that EMS is something pertaining to industries only. Other parts of the world have started adopting compatible environmental management systems either voluntarily or for promoting standards by external certification. International environmental standards do not suit the existing Indian educational system.

A very simple indigenized system has been devised to monitor the environmental performance of educational institutions. It comes with a series of questions to be answered on a regular basis. Environmental conditions may be monitored from angles that are relevant to Indian requirements, without stress on legal issues or compliance. This innovative scheme is user- friendly and totally voluntary. The environmental monitoring system helps the institution to set environmental examples for the community and to educate young learners. It can be adapted to urban and / or rural situations.



OVERVIEW OF INSTITUTE

Laureate Institute of Pharmacy, (H.P. Tech. Uni Off Campus Research Center) Which has been started in year 2007 with a vision to nurture talent into all round excellence by providing an educational experience which is intellectually inspiring and technologically innovative and produce not just professionals but visionaries of tomorrow. This ISO certified and IAO accredited Institute now running B. Pharmacy programme and Post Graduate courses (M. Pharmacy programme in Pharmaceutics and Pharmaceutical analysis and quality assurance) D. Pharmacy, B.Pharmacy Practice, Ph.D. (H.P.Tech. Uni. Off Campus Research Center). The Institute is duly approved by PCI, AICTE and is affiliated to Himachal Pradesh Technical University, Hamirpur as well as recognised by University Grant Commission, New Delhi; under section 2(f) of UGC Act 1956. The institute is located in untamed rural area, while serving excellent education to the moderate economical strata of the society against all odds of natural calamities present in hilly areas of Himachal Pradesh. Institute also works for social activities under National Service Scheme. Institute has sample infrastructure for the new research dimensions including analysis and assessment of drugs, medicines and herbal formulations quality and has state of art laboratories which are well equipped with sophisticated and other amenities.

Laureate Institute of pharmacy has been recognised as one of the best pharmacy college in the region. Institute of pharmacy emphasizes on 360 development of its students. It aims to to promote research in highly emerging technology and thrust areas of medicines and human healthcare and contribute towards fulfilling's the national objectives in pharmaceutical education and technology.

Our objective is to generate high quality scientific information in the field of Pharmaceutical technology including targeted and smart drug delivery systems. The aim is to develop the various conventional and Novel dosage forms along with their standardization for the benefits of the pharmaceutical industry in the order to provide technology transfer. Our target is to propogative industry based research in the areas of formulation and development of Novel Drug delivery systems and preclinical toxicity studies pharmacokinetics and drug metabolism studies.

Elion Technologies and Consulting Pvt Ltd (Elion) team carried out the remote audit of premises. During the audit Elion team carried out virtual visit of entire campus i.e. classrooms, library, washrooms, staff rooms, administration



department, accounts department and hostels.

Campus Information

The college is offering courses in following fields:

- D. Pharm.
- B. Pharm.
- M. Pharm. (Pharmaceutics, Pharm QA & QC and Pharmacology)
- PhD in Pharmaceutical sciences

Details of the infrastructure of Laureate Institute of Pharmacy is as per below:

Building Name	Number of Floors
Administrative Block cum Girls hostel	5
Academic Block A	5
Academic Block B	5
Canteen	1
Administrative residency	3





AUDIT OBJECTIVES

The broad aims/ benefits of the eco-auditing system would be –

- Environmental education through systematic environmental management approach
- Improving environmental standards
- Benchmarking for environmental protection initiatives
- Reduction in resource use
- Financial savings through a reduction in resource use
- Curriculum enrichment through practical experience
- Development of ownership, personal and social responsibility for the university campus and its environment
- Enhancement of university profile
- Developing an environmental ethic and value systems in young people



EXECUTIVE SUMMARY

An environmental audit is a snapshot in time, in which one assesses campus performance in complying with applicable environmental laws and regulations. Though a helpful benchmark, the audit almost immediately becomes outdated unless there is some mechanism in place to continue the effort of monitoring environmental compliance.

This environmental audit of institute is for NACC affiliation; QS Program and doing their bid towards environmental protection and environmental awareness at local and global front. Audit criterion is environmental cognizance, waste minimization and management, biodiversity conservation, water conservation, energy conservation and environmental legislative compliance by the campus. A questionnaire is used during audit. This audit report contains observations and recommendations for improvement of environmental consciousness.





AREA OF IMPROVEMENTS

- Environment Policy shall be adopted by the institute.
- Air Quality monitoring Programme should be implemented and Indoor air Quality Tests Shall be carried out yearly.
- Electrical/Electronic Equipments when not in use should be switched off and should not be on standby modes.



ENVIRONMENTAL AUDIT - QUESTIONARE

The areas of eco/environmental/green auditing to be followed/practiced by participating institutions:

- I. Waste Minimization and Recycling
- II. Greening
- III. Energy Conservation
- IV. Water Conservation
- V. Clean Air
- VI. Animal Welfare
- VII. Environmental Legislative
- VIII. General Practices

Dose any Environmental Audit conducted earlier?

No, Environment Audit is not conducted earlier.

What is the total permanent population of the Institute?

	Male	Female	Total
Students	460	196	656
Teachers	21	20	41
Non Teaching Staff	22	09	31
Sub Total	503	225	728
Approximate Number of Visitors (Per day)			30
What is the total number of working days of your campus in a year?			265

Where is the campus located?

The campus is Located near the Ramnil Dham, Kathog Tehsil Jawalamukhi.





Which of the following are available in your institute?

1 Garden area	Yes
2 Playground	Yes
3 Kitchen	Yes
4 Toilets	Yes
5 Garbage Or Waste StoreYard	Yes (Garbage Bins)
6 Laboratory	Yes
7 Canteen	Yes
8 Hostel Facility(numbers)	Yes (Two)
9 Guest House	Yes

Which of the following are found near your institute?

1 Municipal dump yard	No
2 Garbage heap	3 Km. far at Jawalamukhi
3 Public convenience	No
4 Sewer line	No
5 Stagnant water	No
6 Open drainage	No
7 Industry - (Mention the type)	3 Km. from college at Jawalamukhi
8 Bus / Railway station	20 Km. from college 3 Km. from college at Jawalamukhi
9 Market / Shopping complex / Public halls	Jawalamukhi



I WASTE MINIMIZATION AND RECYCLING

1.	Does your institute generate any waste? If so, what are they?	Yes Kitchen and Toilets wastes. Biodegradable waste
2.	What is the approximate amount of waste generated per day? (in Kilograms/month) (approx.)	300 Kg/Month Biodegradable waste
3.	How is the waste generated in the institute managed? By 1 Composting 2 Recycling 3 Reusing 4 Others(specify)	Sewerage Treatment Plant
4.	Do you use recycled paper in institute?	Yes
5.	Do you use reused paper in institute?	Yes
6.	How would you spread the message of recycling to others in the community? Have you taken any initiatives? If yes, please specify.	By Spreading the messages that do not burn the paper instead give it to the recycling industry.
7.	Can you achieve zero garbage in your institute? If yes, how?	No



**II GREENING THE CAMPUS**

1.	Is there a garden in your institute?	Yes
2.	Do students spend time in the garden?	Yes
3.	Total number of Plants in Campus	1126
4.	Suggest plants for your campus. (Trees, vegetables, herbs, etc.)	Mango, Amla, Neem and orange Plants
5.	Is the university campus have any Horticulture Department	No
	Number of Staff working in Horticulture Department	NA
6.	Number of Tree Plantation Drives organized by School per annum.(If Any)	Two
7.	Number of Trees Planted in Last FY.	500
	Survival Rate	70%
8.	Plant Distribution Program for Students and Community	Yes in every conference, seminar and institutional function plants were distributed, also distributed to the students and Community.
9.	Plant Ownership Program	-



III ENERGY CONSERVATION

1.	List ten ways that you use energy in your institute. (Electricity, LPG, firewood, others). Using this list, try to think of ways that you could use less energy every day.	<ol style="list-style-type: none"> 1. Solar electricity 2. Solar water heater
2.	Are there any energy saving methods employed in your institute? If yes, please specify. If no, suggest some	<ol style="list-style-type: none"> 1. Minimized the use of bulbs 2. Replaced the bulbs from the CFL and LED Lamps
3.	How many CFL/LED bulbs has your institute Installed?	450 approximately
4.	Are any alternative energy sources employed / installed in your institute? (photovoltaic cells for solar energy, windmill, energy efficient stoves, etc.,) Specify.	<ol style="list-style-type: none"> 1. Solar energy <ol style="list-style-type: none"> a. Solar electricity b. Solar water heater
5.	Do you run "switch off" drills at institute?	Yes
6.	Are your computers and other equipment's put on power-saving mode?	Yes
7.	Does your machinery (TV, AC, Computer, weighing balance, printers, etc.) run on standby modes	Yes for 6 hours





most of the time? If yes, how many hours?	
---	--

IV WATER CONSERVATION

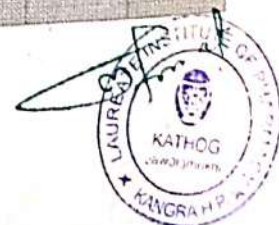
1. List four uses of water in your institute	<ol style="list-style-type: none">1. Laboratory purpose2. Drinking & Cooking in canteen3. Irrigation for Garden4. Washing & Cleaning
2. How does your institute store water? Are there any water saving techniques followed in your institute?	<ol style="list-style-type: none">1. PVC water storage tank2. Underground water storage tank Water saving techniques: Rain water harvesting.
3. If there is water wastage, specify why and How can the wastage be prevented / stopped?	No water wastage is there in campus
4. Locate the point of entry of water and point of exit of waste water in your institute. Entry- Exit-	Entry-Through borewell by pipeline to storage. Exit- Through closed sewerage pipe line to STP (Sewerage Treatment Plant)



5.	Write down four ways that could reduce the amount of water used in your institute	<ol style="list-style-type: none"> 1. By installing low flush toilets 2. Use of hands & not the hose to water plants. 3. Water the plants in morning 4. More plantations by considering planting drought tolerant plant.
6.	Record water use from the institute water meter for six months (record at the same time of each day). At the end of the period, compile a table to show how many litres of water have been used.	5000 litres/Day 150000 litres/month
7.	Does your institute harvest rain water?	Yes
8.	Is there any water recycling System.	No

V CLEAN AIR

1.	Are the Rooms in Campus are Well Ventilated?	Yes				
2.	Window Floor ratio of the Rooms	24:1 (W:F)				
3.	What is the ownership of the vehicles used by your school? (Please Tick <input checked="" type="checkbox"/> only one)	Yes				
		Operator-owned vehicles				
		<input checked="" type="checkbox"/> School-owned vehicles <input type="checkbox"/> A combination of campus-owned and operator-owned vehicles				
4.	Provide details of school-owned motorised vehicles?	Buses	Cars	Vans	Other	Total
		No. of vehicles	2	-	2	1





No. of vehicles more than five years old	2	-	1	-	03
No. of Air conditioned vehicles	-	-	-	1	1
PUC done	Yes	-	Yes	Yes	
5. Specify the type of fuel used by your school's vehicles:	Buses	Cars	Vans	Other	
Diesel	✓	-	✓	✓	
Petrol	-	-	-	-	
CNG	-	-	-	-	
LPG	-	-	-	-	
Electric	-	-	-	-	
6. Air Quality Monitoring Program (If Any)	No				
7. Students suffer from respiratory ailments? (If Any)	No				
8. Details of Genset	Sudhir, Diesel Genset CS62.5D5P				

VI ANIMAL WELFARE

1. List the animals (wild and domestic) found on the campus (dogs, cats, squirrels, birds, insects, etc.)	1. Cats, 2. Squirrels 3. Birds 4. Insects
2. How many dogs in your area have undergone Animal Birth Control - Anti Rabies (ABC - AR)?	NIL
3. Does your institute have a Biodiversity Programme or a KARUNA CLUB?	Yes a club of staff members motivating students for conservation of nature as well as social activity for underserved people.



VII ENVIRONMENTAL LEGISLATIVE COMPLIANCE

1.	Are you aware of any environmental Laws pertaining to different aspects of environmental management?	Yes
2.	Does your institute have any rules to protect the environment? List possible rules you could include.	Students and staff members instructed that do not pluck flowers from institution garden area.
3.	Dose Environmental Ambient Air Quality Monitoring conducted by the Institute?	No
4.	Dose Environmental Water and Wastewater Quality monitoring conducted by the Institute?	Yes the Quality is good periodically monitored by institute.
5.	Dose stack monitoring of DG sets conducted by the Institute?	Yes by the electrician.
6.	Is any warning notice, letter issued by state government bodies?	No
7.	Dose any Hazardous waste generated by the Institute? If yes explain its category and disposal method	No
8.	Dose any Bio medical waste generated by the Institute? If yes explain its category and disposal method	No

VIII GENERAL PRACTICES

1.	Are you aware of any environmental Laws pertaining to different aspects of environmental management?	Yes
2.	Does your institute have any rules to protect the environment? List possible rules you could include.	Anybody in the premises are instructed not to cause any kind of harm to the plants.





3.	Does housekeeping schedule in your campus?	Yes
4.	Are students and faculties aware of environmental cleanliness ways? If Yes Explain	YES By means of environmental awareness programme.
5.	Does Important Days Like World Environment Day, Earth Day, and Ozone Day etc. eminent in Campus?	Yes
6.	Does Institute participated in National and Local Environmental Protection Movement?	Yes
7.	Does Institute has any Recognition/certification for environment friendliness?	No
8.	Does Institute using renewable energy?	Yes Solar electricity
9.	Does Institution conducts a green/environmental audit of its campus?	Yes
10.	Has the institution been audited / accredited by any other agency such as NABL, NABET, TQPM, NAAC etc.?	No



RECOMMENDATIONS

- Environment Policy shall be adopted by the institute.
- Air Quality monitoring Programme should be implemented and Indoor air Quality Tests Shall be carried out yearly.
- Electrical/Electronic Equipments when not in use should be switched off and should not be on standby modes.





CONCLUSION

This audit involved extensive consultation with all the campus team, interactions with key personnel on wide range of issues related to Environmental aspects. Overall, 30% of university campus is for landscaping. The audit has identified several observations for making the campus premise more environmentally friendly. The recommendations are also mentioned with observations for college team to initiate actions.

The audit team opines that the overall site is maintained well from environmental perspective. There are no major observations but few things are important which if implemented would further strengthen the environment setting in the college.



REFERENCE

- The Environment [Protection] Act – 1986 (Amended 1991) & Rules-1986 (Amended 2010)
- The Petroleum Act: 1934 – The Petroleum Rules: 2002
- The Central Motor Vehicle Act: 1988 (Amended 2011) and The Central Motor Vehicle
- Rules:1989 (Amended in 2005)
- Energy Conservation Act 2010.
- The Water [Prevention & Control of Pollution] Act – 1974 (Amended 1988) & the Water (Prevention & Control of Pollution) Rules – 1975
- The Water [Prevention & Control of Pollution] Cess Act-1977 (Amended 2003) and Rules- 1978
- The Air [Prevention & Control of Pollution] Act – 1981 (Amended 1987) The Air (Prevention & Control of Pollution) Rules – 1982
- The Gas Cylinders Rules – 2016 (Replaces the Gas Cylinder Rules – 1981
- E-waste management rules 2016
- Electrical Act 2003 (Amended 2001) / Rules 1956 (Amended 2006)
- The Hazardous Waste (Management and Handling and Trans-boundary Movement) Rules, 2008 (Amended 2016)
- The Noise Pollution Regulation & Control rules, 2000 (Amended 2010)
- The Batteries (Management and Handling) rules, 2001 (Amended 2010)
- Relevant Indian Standard Code practices

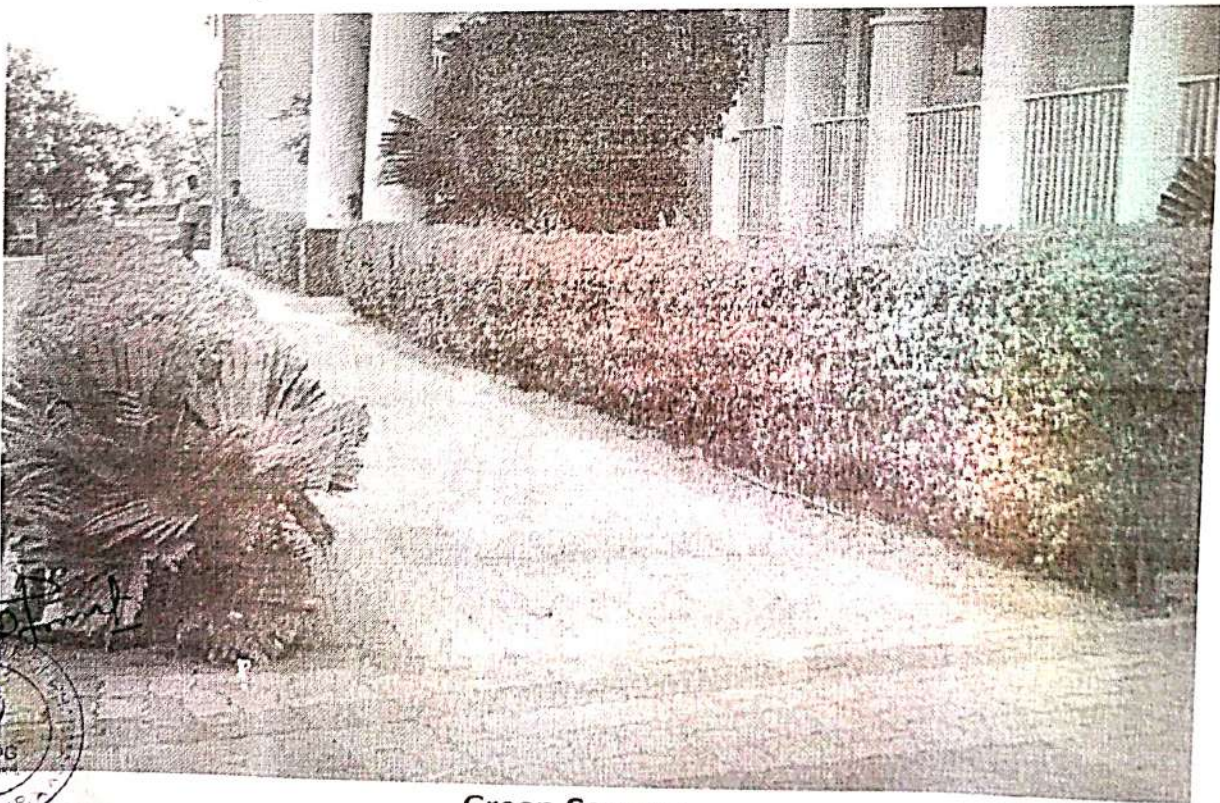




ANNEXURE -
PHOTOGRAPHS OF ENVIRONMENT CONSIIOUSNESS

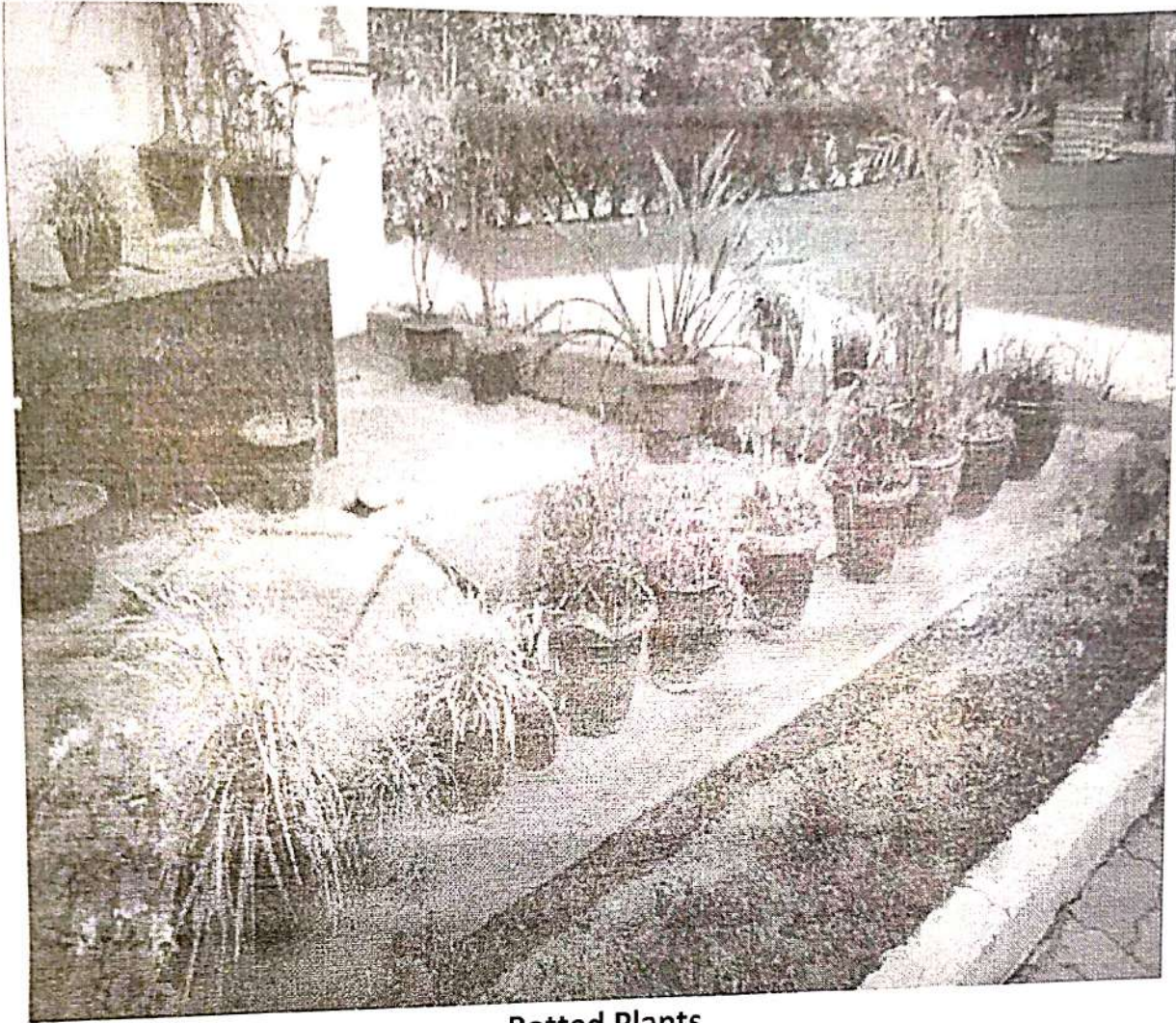


Tree Plantation



Green Campus





Potted Plants

Signature
LAUREATE INSTITUTE OF
KATHOG
KANGRA H.P.

Elion Technologies & Consulting Pvt Ltd Certificate

This is to certify that Environment Audit at Laureate Institute of Pharmacy SH 22, Village and Post Office Kathog, Himachal Pradesh 177101 was carried out for academic year 2022.

Campus has submitted necessary data and credentials for scrutiny. It is found that college is an oxygen tank. The college also had 100 percent rain water of roofs recharging soil and is helping in maintaining in the campus underground water table.

VALID TILL
27th April, 2023

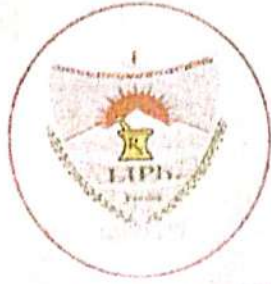

Audit Officer



Certificate Number
ENV /2022/LIP



4. Beyond the campus environmental promotion activities.



Telefax : 01970-223000
Ph. : 92184-28040, 92184-05087

Laureate Institute of Pharmacy

(Approved by PCI & AICTE, New Delhi and H.P. Govt.)
Affiliated to H.P. University, Shimla

Kathog, Tehsil Dehra, Distt. Kangra (H.P.)-177 101


Date

Ref. No.

Special Swachhta Campaign on 12th of August, 2017

Prime Minister Shri Narendra Modi exhorted people to fulfill Mahatma Gandhi's vision of Clean India. The 'Swachha Bharat Abhiyaan' (CLEAN INDIA MISSION) is a massive mass movement which was launched on 2nd October, 2014; the 145th Birth Anniversary of Mahatma Gandhi that seeks to create a Clean India within a period of 5 years. Cleanliness was very close to Mahatma Gandhi's heart. A clean India will be the best tribute we can pay to Bapu when we celebrate his 150th birth anniversary in 2019. Now the time has come to involve ourselves towards 'Swachhata' (cleanliness) of our motherland. Hon'able Prime Minister Sri Narendra Modi called for nationwide campaign involving all sections of the Society to create a mass awareness on the cleanliness. Swachha Bharat Abhiyaan exhorts people to devote 100 hours every year towards the cause of cleanliness. As many as nine public figures: Mridula Sinha, Sachin Tendulkar, Baba Ramdev, Shashi Tharoor, Anil Ambani, Kamal Hasan, Salman Khan, Priyanka Chopra and Team Tarak Mehta ka Oolta Chashma - have been invited by the PM to make a contribution towards Swachha Bharat, share the same on social media, and invite nine other people to do the same, hence forming a chain. People also asked to share their contributions on social media using the hash-tag #My Clean India.

The campaign was initiated from the cleanliness drive of our Campus and surrounding areas in July 2017. All the volunteers participated in the campaign and transformed the area to a beautiful site which was a dream to think of and we are continuing this campaign.


DIRECTOR CUM PRINCIPAL
LAUREATE INSTITUTE
OF PHARMACY KATHOG
TEH. JAWALAMUKHI
DISTT. KANGRA (H.P.)



Ph. 92184-28040, 92184-05087

Laureate Institute of Pharmacy

(Approved by PCI & AICTE, New Delhi and H.P. Govt.)

Affiliated to Himachal Pradesh Technical University, Hamirpur
VPO Kathog, Tehsil Jawalamukhi, Distt. Kangra, H.P. Pin Code 176031

Special Swachhta Campaign on 12th August 2017





Telefax : 01970-223000
Ph. : 92184-28040, 92184-05087

Laureate Institute of Pharmacy

(Approved by PCI & AICTE, New Delhi and H.P. Govt.)
Affiliated to H.P. University, Shimla

Kathog, Tehsil Dehra, Distt. Kangra (H.P.)-177 101

Ref. No.

Date

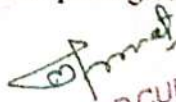
A Report on Eradication of cannabis

September 1, 2017

The rally on eradication of cannabis started from the campus to Jwalamukhi tehsil covering the wide areas of schools, colleges, hospitals, shops, etc. on September 1, 2017. The participants were the students of the NSS unit as well as the girls and boys of the laureate institute of pharmacy. All the students were in full swing for the rally on eradication of cannabis with the Anti marijuana slogans "An ounce of weed a day takes your life away", "Do a good deed and kill the weed", "ek- do- teen- char nashaukti ki jai jai kar", "nahi chalegi, nahi chalegi.. bhang ki beedi nahi chalegi", "Charas Ganja bhang ko jadh se mitana h, desh ko nashamukt banana hai." etc. at the top of their voice.



The rally attracts a lot of attention of general masses. The students of laureate institute were determined to provide all the harmful effect of cannabis to the people and aware them about their side effect and addictive properties because it is particularly important for people to understand what is known about both the adverse health effects and the potential therapeutic benefits linked to marijuana. In the evening session there were the poster presentation and essay writing competition on the eradication of cannabis. The closing of the rally end with the cheerful refreshment and prize giving.


DIRECTOR CUM PRINCIPAL
LAUREATE INSTITUTE
OF PHARMACY KATHOG
TEHSIL JWALAMUKHI
DISTT. KANGRA (H.P.)



Telefax : 01970-223000
Ph. : 92184-28040, 92184-05087

Laureate Institute of Pharmacy

(Approved by PCI & AICTE, New Delhi and H.P. Govt.)
Affiliated to H.P. University, Shimla

Kathog, Tehsil Dehra, Distt. Kangra (H.P.)-177 101

Ref. No.

Date




Programme officer

(Mr. Shabby Jindal)


programme co-ordinator

(Dr. Vinay Pandit)



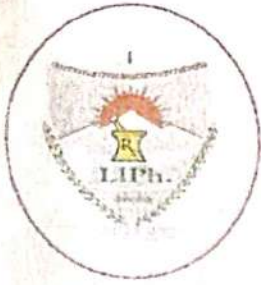
N.S.S. Officer - N.S.S. Unit
Laureate Institute of Pharmacy
Kathog, Teh. Jawalamukhi
Distt. Kangra (H.P.)



N.S.S. Co-ordinator - N.S.S. Unit
Laureate Institute of Pharmacy
Kathog, Teh. Jawalamukhi
Distt. Kangra (H.P.)


Principal

(Dr. M.S. Ashawat)
DIRECTOR CUM PRINCIPAL
LAUREATE INSTITUTE
OF PHARMACY, KATHOG
TEH. JAWALAMUKHI
DISTT. KANGRA (H.P.)



Laureate Institute of Pharmacy

(Approved by PCI & AICTE, New Delhi and H.P. Govt.)
Affiliated to H.P. University, Shimla

Kathog, Tehsil Dehra, Distt. Kangra (H.P.)-177 101

Ref. No.

Date

2nd October, 2017

Swachh Bharat Abhiyaan by NSS unit

Swachh Bharat Abhiyaan was started from within the college campus on 2nd October 2017 with the swachhta shapath (pledge). All the NSS volunteers took active part in the Swachh Bharat Abhiyaan along with Principal and college fraternity. Volunteers of NSS unit took a pledge to be the active member of clean India drive both within and outside the college to clean India till 2019 so as to fulfill the dreams of our dynamic Prime Minister Sh. Narinder Modi. Staff members of Laureate institute of pharmacy were actively participated in the Swachhta Abhiyaan. One day camp was organized within the college premises where volunteers were briefed with various activities regarding cleanliness drive to be started from within the campus and its effective spread to villages/slums/hospitals/ historical monuments and other public places in future.



[Handwritten signature]

DIRECTOR CUM PRINCIPAL
LAUREATE INSTITUTE
OF PHARMACY KATHOG
TEH. DEHRA DISTT. KANGRA (H.P.)



Telefax : 01970-223000
Ph. : 92184-28040, 92184-05087

Laureate Institute of Pharmacy

(Approved by PCI & AICTE, New Delhi and H.P. Govt.)
Affiliated to H.P. University, Shimla
Kathog, Tehsil Dehra, Distt. Kangra (H.P.)-177 101

Ref. No.

Date

Celebration of NSS day on 24th September 2017

On the occasion of NSS day, the NSS volunteers of Laureate institute of pharmacy, faculty and students along with Indian Pharmacist Association State Branch organized the poster competition and elocution competition on general health and services. The topic of Competition is "Partners in Health Care Services and Their Role in the Management Health Services" around 20 students had participated in the competition and they had spoken on the topic very well and come up with a various needs to improve the general health in the country along with some suggestions. The competition was judged by Dr. Manish Sinha and Mr. Shammy Jindal from Laureate institute of Pharmacy. In the competition Ms. Yamini Jamwal 7th sem was got first prize followed by Ms. Avantika Dadwal (M.Pharm Ist sem) and Sajda Begum (7th sem) 2nd and 3rd position respectively.

Poster competition was also performed in the M.Pharm lab. Around 30 posters were displayed by the students. Posters were reviewed and evaluated by Mr. Pravin Kumar and Ms. Kamyia jindal from pharmacy department.

DIRECTOR CUM PRINCIPAL
LAUREATE INSTITUTE
OF PHARMACY, KATHOG
177 101
KANGRA (H.P.)



Telefax : 01970-223000
Ph. : 92184-28040, 92184-05087

Laureate Institute of Pharmacy

(Approved by PCI & AICTE, New Delhi and H.P. Govt.)
Affiliated to H.P. University, Shimla

Kathog, Tehsil Dehra, Distt. Kangra (H.P.)-177 101


Ref. No

Date

ACTIVITIES:

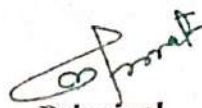
The Campaign was initiated by Dr. Ran Singh, Managing Director of Institute along with Dr. M.S. Ashawat Principal, Prof. CP Verma Dean, student welfare and other NSS Volunteers was cleaned and beatify the campus in the best manner.




Programme Officer
(Shammy Jindal)




N.S.S. Officer - N.S.S. Unit
Laureate Institute of Pharmacy
Kathog, Teh. Jawalamukhi
Distt. Kangra (H.P.)



Principal
(Dr. M S Ashawat)

DIRECTOR CUM PRINCIPAL
LAUREATE INSTITUTE
OF PHARMACY, KATHOG
TEH. JAWALAMUKHI
DISTT KANGRA (H.P.)


Programme Coordinator
(Dr. Vinay Pandit)



N.S.S. Co-ordinator - N.S.S. Unit
Laureate Institute of Pharmacy
Kathog Teh. Jawalamukhi
Distt. Kangra (H.P.)