



Laboratory Safety Manual and Procedure For Organic Chemistry Laboratory 2021-22



Lab Safety



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Description	Number
University Ambulance	8895467798
Local Police Station	100
Women Help Line	1091
Children Help Line	1098
Fire Help Line	101
Ambulance Help Line	108
Janani Ambulance Help Line	102
Traffic Help Line	1095
N.H.A.I. Help Line	1033





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General Safety Rules



1. Listen to or read instructions carefully before attempting to do anything.
2. Wear safety goggles to protect your eyes from chemicals, heated materials, or things that might be able to shatter.
3. Notify your teacher if any spills or accidents occur.





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General Safety Rules

4. After handling chemicals, always wash your hands with soap and water.



5. During lab work, keep your hands away from your face.

6. Tie back long hair.





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General Safety Rules

7. Roll up loose sleeves.
8. Know the location of the fire extinguisher, fire blanket, eyewash station, and first aid kit.
9. Keep your work area uncluttered. Take to the lab station only what is necessary.





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General Safety Rules



10. It is suggested that you wear glasses rather than contact lenses.
11. Never put anything into your mouth during a lab experiment.
12. Clean up your lab area at the conclusion of the laboratory period.
13. Never “horse around” or play practical jokes in the laboratory.





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Glassware Safety



1. Chipped or cracked glassware should not be used. Show it to the teacher.
2. Broken glassware should not be disposed of in a classroom trashcan. There is a special glass disposal container for it.
3. When pouring liquids into glassware, make sure the container you are pouring into is resting on a table at least a hands breadth from the edge.



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Glassware Safety



4. If a piece of glassware gets broken, do not try to clean it up by yourself.
Notify the teacher.
5. Do not place hot glassware in water.
Rapid cooling may make it shatter.





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Chemical Safety



1. Wear protective goggles whenever heating or pouring hazardous chemicals.
2. Never mix chemicals together unless you are told to do so (and then only in the manner specified).
3. Never taste any chemicals (you should never taste anything in the lab).





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Chemical Safety



4. If you need to smell the odor of a chemical, waft the fumes toward your nose with one hand. Do not put your nose over the container and inhale the fumes.





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Chemical Safety



5. Follow the instructions of your teacher when disposing of all chemicals.
6. Wash your hands after handling hazardous chemicals.





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Heating Safety



1. Use tongs and/or protective gloves to handle hot objects.
2. Never reach across an open flame or burner.



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Heating Safety



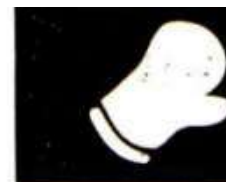
3. Always point the top ends of test tubes that are being heated away from people.
4. When heating a test tube, move it around slowly over the flame to distribute the heat evenly.





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Heating Safety



5. Only glassware that is thoroughly dry should be heated.
6. Heat glassware by placing it on a wire gauze platform on a ringstand. Do not hold it in your hand.





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First Aid

Injury: Burns

To Do: Immediately flush with cold water until burning sensation lessened.





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First Aid



Injury: Cuts, bruises

To Do: Do not touch an open wound without safety gloves. Pressing directly on minor cuts will stop bleeding in a few minutes. Apply cold compress to bruises to reduce swelling.





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First Aid



Injury: The eyes

To Do: Flush eyes immediately with plenty of water for several minutes. If a foreign object is lodged in the eye, do not allow the eye to be rubbed.





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Safety Rules

⌘ Wear appropriate protective clothing



Protective gear has to be comfortable.





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- ⌘ Your clothing should cover your legs to the knees - shorts are not appropriate for the laboratory
- ⌘ Lab aprons can be used to protect good clothing
- ⌘ Loose clothing should not be worn because it may dip into chemicals or fall into a flame and catch fire



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Wear shoes that cover your feet.

Sandals and open-toed shoes do not protect your feet from broken glass that is frequently found in the lab



⌘ Also, leather shoes protect your feet from chemical spills - canvas shoes do not.





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Tie Back Loose Hair



- ⌘ Dangling hair can fall into the Bunsen burner and catch fire or can fall into a chemical solution





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Do not wear contact lenses

- ⌘ Vapors in the laboratory (e.g. HCl) dissolve in the liquids covering the eye and concentrate behind the lenses.





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- Know the locations of the nearest available telephones and emergency phone numbers to use to call for help in case of an emergency.





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- Know the locations and operating instructions for the fire extinguishers, fire blankets, fire alarms, fire hoses, first aid kit, eye washes and showers.
- Wash eyes for at least 15 minutes.





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Do not apply cosmetics, eat, or drink
in the lab.

⌘ These activities are ways by which you
can accidentally ingest harmful
chemicals





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Do not taste any chemical!





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- ⌘ Follow instructions carefully. Know the safety hazards of each experiment before starting.
- ⌘ Do not perform unauthorized experiments. Only work in the laboratory when supervised by an instructor.





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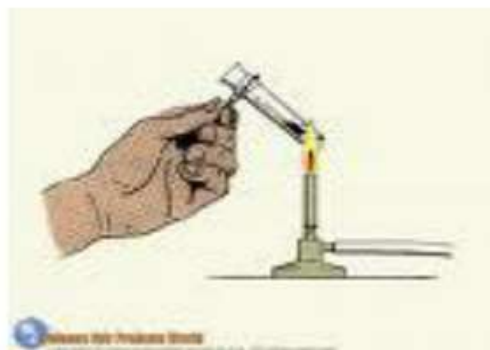
- ⌘ Keep burners in the middle of the lab table, not on the edge.
- ⌘ When heating liquids in test tubes, never point the tube toward yourself or anyone else.
- ⌘ Use boiling chips when boiling





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Heat test tubes at an angle, directing the opening oppositely to you and other people in the laboratory.





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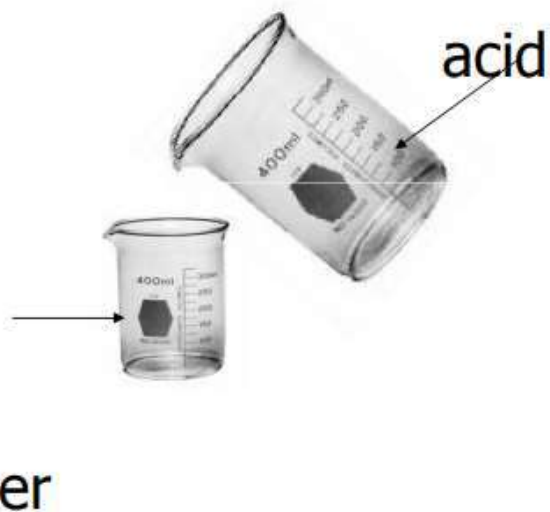
**Pour from large containers to
smaller ones.**





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Always **ADD ACID** to water



“Do not spit into acid!” – a good phrase to



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**Hold your hand over the label
while pouring.**





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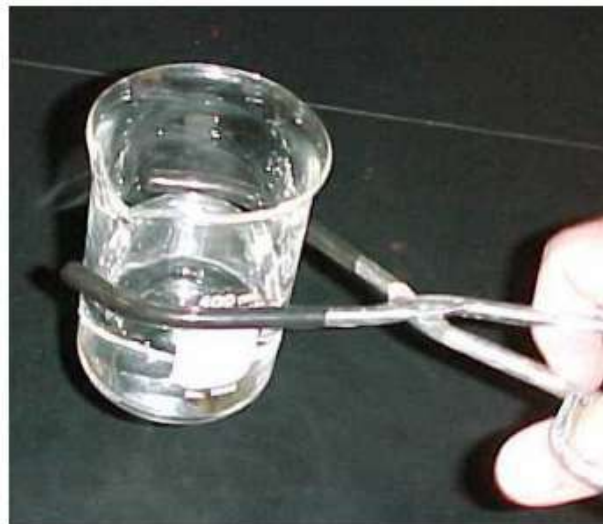
**Work with volatile chemicals
under a fume hood.**





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**Handle hot glassware with gloves
or beaker tongs.**





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First light the match

THEN



Turn on the gas!





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Do not smell any chemicals directly!



⌘ If absoluteley necessary to smell, use your hand to fan the vapor to your nose.



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Do not pipet solutions by mouth!



⌘ Use a rubber suction bulb or other device to fill a pipet.





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Wash your hands with soap and water before leaving.

⌘ This rule applies even if you have been wearing gloves!





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- ⌘ Report all accidents, no matter how minor, to the instructor.
- ⌘ If you break something made of glass, be sure to use dustpan and hand broom to sweep it up and dispose of it in the glass waste receptacle.





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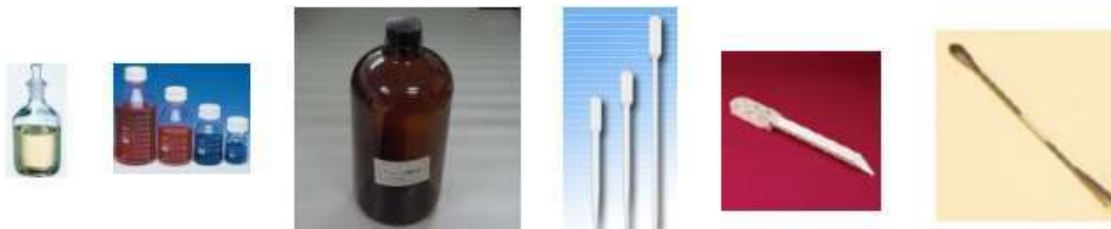
- ⌘ Never return chemicals to bottles of their origin. If you have excess, give it to another student or throw it away.
- ⌘ Check labels on containers twice to make sure you use the right chemical and of the correct concentration. Dispose of chemicals in proper receptacle.





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- ⌘ Do not stick objects into bottle except spatula or dropper provided for that bottle. Do not set the spatula or dropper down on the counter (you may contaminate it).
- ⌘ Keep each spatula or dropper with the proper bottle.





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Don't work alone in the lab

- ⌘ In case of a problem, you may need another person to prevent injury or even save your life!





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Before leaving the lab:

- ⌘ Keep table tops clean.
- ⌘ Return all equipment to its original location before leaving the lab.
- ⌘ Clean all spills immediately.
- ⌘ Wash your hands after every experiment.





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Where to start



- ⌘ Before looking at this presentation, ensure that you have watched the one on General Laboratory Safety



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hazards from chemical materials?



- ⌘ Toxic substances
 - ⌘ Solvents
 - ⌘ Corrosives
 - ⌘ Flammables
 - ⌘ Irritants
 - ⌘ Carcinogens
 - ⌘ Teratogens
 - ⌘ Mutagens
 - ⌘ Explosives
 - ⌘ Radiation
- and many, many more



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How do toxic materials enter the body?

- ⌘ By mouth
(contaminated fingers!)
- ⌘ By breathing in gases, aerosols or powder
- ⌘ By skin contact or damage
- ⌘ By absorption through intact skin
- ⌘ By splashes into the eyes





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What legislation applies? (1)

⌘ Control of Substances Hazardous to Health Regs 2004

- ☑ Use data sheets and other relevant information (eg EH40) to assess risk
- ☑ Consider not only reactants but also intermediates, products and waste
- ☑ Take into account the format (eg solution or powder) and the quantity to be used
- ☑ Determine safe working procedures
- ☑ Determine emergency procedures, ensuring that all equipment and "mop-up" materials are available
- ☑ Consider correct waste disposal



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What legislation applies? (2)

⌘ Other relevant legislation includes:

- ☑ Dangerous Substances & Explosive Atmosphere Regs 2005
- ☑ Pressure Systems Regs 2000
- ☑ Provision & Use of Work Equipment Regs 1998



This list is not
exhaustive!!



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Fume Cupboards

- ⌘ Ensure that the equipment is working properly
- ⌘ Ensure you know the meaning of warning signals and how to use any controls
- ⌘ Close the sash unless loading or unloading
- ⌘ Do not use fume cupboards for storage
- ⌘ Keep the work area clear of other materials etc





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Materials

- ⌘ Obtain the **minimum** amounts needed for your work
- ⌘ Ensure that all containers are clearly **labelled** with their contents and a hazard label
- ⌘ Toxic materials must be **locked away**
- ⌘ Corrosive substances must be stored securely at a low level in **bunded trays**
- ⌘ Keep flammable materials in **specialty designed cupboards** and only have out the minimum for immediate use (<50L per room)
- ⌘ Store acids, bases & solvents separately





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Good practice

- ⌘ Never mouth-pipette
- ⌘ Always dilute concentrated acids by adding the acid to water, never the reverse
- ⌘ Never carry Winchester's by the neck – always use a carrier
- ⌘ Always leave benches, balances etc clean & tidy after use





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Radio-Active Materials & Work with Lasers

- ⌘ Work with radio-active materials and lasers requires special training
- ⌘ You **must not** use them without authorisation and training
- ⌘ Your Departmental Safety Staff can advise or contact Trevor Moseley in Safety Services





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Work with Cyanides & Hydrofluoric Acid

- ⌘ If you plan to use Cyanides or Hydrofluoric Acid, you will have to have specific permission from your Departmental Safety Officer
- ⌘ Attendance at a training course at Safety Services will normally be required
- ⌘ The dangers of both substances, especially hydrofluoric acid can be greatly underestimated with potentially **fatal** results.
- ⌘ They are both **VERY DANGEROUS** substances





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When in doubt – ASK!!!

⌘ Do not carry out a new or unfamiliar procedure until you have been fully trained & understand the precautions necessary for safe working



⌘ DO NOT GUESS!!!!



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Handle By

Respirator
Long rubber gloves
Boots
Industrial apron
Chemical safety goggles
Face shield

Carbolic **acid** or phenol does not mix with water, so use alcohol first to flush the chemical off the **skin** and then flush with water. If alcohol is not available, flush with a large amount of water. **Do** not flush the eye with alcohol. **Sulfuric acid** is flushed with a mild, soapy solution if the **burns** are not severe.





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Hydrofluoric acid is flushed with a large amount of **water and treated with calcium gluconate**. You need immediate medical care.





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Chemical burns not rinsed with water

Some chemical burns are made worse if rinsed (flushed) with water.

Carbolic acid or phenol does not mix with water, so use isopropyl (rubbing) alcohol first to flush the chemical off the skin and then flush with water. If alcohol is not available, flush with a large amount of water. Do not flush the eye with alcohol.

Sulfuric acid is flushed with a mild, soapy solution if the burns are not severe. Sulfuric acid feels hot when water is added to the acid, but it is better to flush the area and not leave the acid on the skin.

Dry powders, such as dry lime, are brushed away first, because adding water can make a liquid that burns. After the powder is brushed away, flush with water for 20 minutes.

Metal compounds are covered with mineral oil.

The most important first aid for a **chemical in the eye** is to immediately flush the substance out with large amounts of water to reduce the chance of serious eye damage. For any chemical burn to the eye, see the topic Burns to the Eye.



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Artificial Respiration



1
Make sure the airway is clear and remove any obstructing substance.



4
Check Neck for a pulse.



2
Place one hand under his neck. Lift up on neck and partially tilt the head back.



3
Pull his chin upward. Place your mouth firmly over the victims open mouth, pinch his nostrils shut, and blow hard enough to make his chest rise.



5
Apply Cardiopulmonary Resuscitation.

Repeat the procedure until the victim begins to breath.



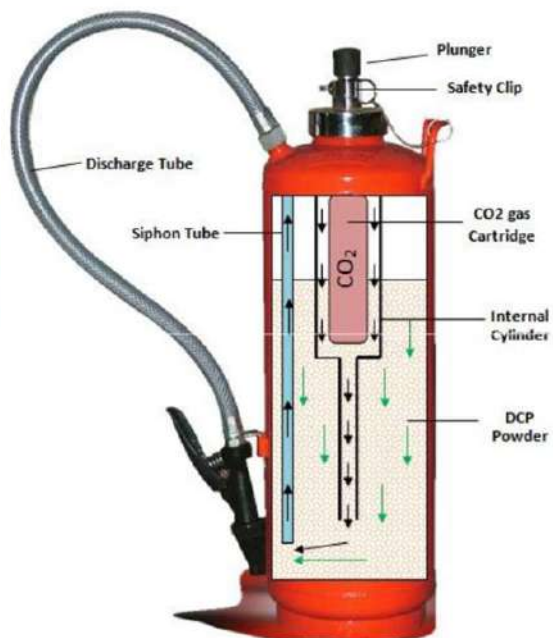
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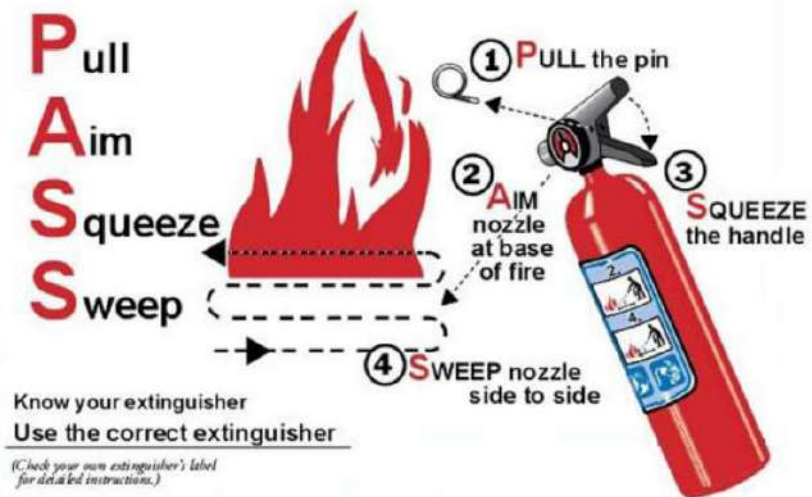


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CO₂ Extinguisher



To operate an extinguisher:





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FIRE ALARM



UNIVERSITY ENVIRONMENT POLICY

2022

Department of Environmental Studies



BERHAMPUR UNIVERSITY
Bhanja Bihar – 760007
Odisha, India

UNIVERSITY ENVIRONMENT POLICY 2022

A document that emphasizes sustainable utilization, management, conservation, and prevention of degradation of natural resources based on a sound ecological approach and principles of inclusivity.

Department of Environmental Studies



BERHAMPUR UNIVERSITY

Bhanja Bihar – 760007

Odisha, India

1. About the Policy Document

1.1. Background

The conceptualization of University Environment Policy (UEP) is based on the creation of the Department of Environment Studies (DES) at Berhampur University (BU). The history of the DES goes back to 2018 when its earlier avatar – the Department of Natural Resources Management and Geoinformatics (NRMG) was established in the erstwhile Khallikote University, Berhampur. Initially, the department had an interdisciplinary focus offering Master's (M.A./M.Sc.) and Ph.D. degrees at Khallikote University. After the amalgamation of Khallikote University with Berhampur University (BU), a major academic restructuring exercise was carried out, and in Berhampur University while maintaining the interdisciplinary nature, the present Department of Environment Studies was created in the year 2021. Presently, this is the only University in the state which offers Post Graduate and Doctorate degrees in the subject of Environment Studies. The genesis for such a department was to produce quality manpower in the field of Environment and Sustainability both through teaching and R&D activities, to meet the aspirations of the state as well as the country. In addition to imparting quality education, the Department initiated proactive steps to draft a policy document that will be the guiding force for the management and conservation of the natural resource base of BU Campus.

1.2. About the University

Berhampur University, a state-run Public University, was established on 2nd January 1967 by the Odisha Act 21 of 1966 as an affiliating University. With a geographical area of around 250 acres, the Berhampur University campus (19°18'01" – 19°17'24" N and 84°52'48" – 84°52'12" E) at Rangeilunda, Berhampur is bestowed with mosaic habitats, viz., inland water bodies, freshwater marshes, agricultural lands, plantation area, grassland, open field, moderate forest patches, and human habitations and road networks. The university campus is represented by abundant natural resources, especially its inland water bodies, woodlands, and *Casuarina* patches. There are around eight water bodies present in and around the university campus. An airstrip namely Rangeilunda Airstrip is an open field with small herbs, shrubs and fewer trees. The University campus is represented by its rich flora and fauna. More than 100 species of birds seen in the Campus add to the rich faunal resources of the campus. The woodlands and shrub patches of the University have been known to be an abode for

around 50 Spotted deer (*Axes axes*), popularly known as deer park (with an area of 2.61 acres). However, last year the deer park was closed down by the state forest department, and the deers (antelopes) were translocated to Lakhari Valley Wildlife Sanctuary (LVWS) in the Gajapati district in Odisha. Further, flying fox roosting colonies in the woodland patches of the campus have been the most sought-after sites for animal lovers in the campus.

The University Environment Policy (UEP) 2022 is a document that provides a base to develop strategies and action plans for sustainable management of natural resource base of the University Campus, seeks to extend the coverage, and fill in existing gaps, in light of present knowledge and accumulated experience. It does not displace, but builds on the earlier plans and programmes, if any, and essentially an inclusive document to be referred by all potential stakeholders.

1.3. Preamble

A vibrant University Campus, such as that of BU provides numerous challenges in the management of natural resources and making the campus self-reliant in many aspects, w.r.t. utilization of natural resources. Presently, more than half a dozen of national policies is available providing operational guidelines for the management of natural resources of the country as a whole, *viz.*, National Forest Policy, 1988; National Conservation Strategy and Policy Statement on Environment and Development, 1992; Policy Statement on Abatement of Pollution, 1992; National Agriculture Policy, 2000; National Water Policy, 2002; National Environment Policy, 2006. Being guided by such policy documents and in sync with Sustainable Development Goals, and various national missions/targets, the Department of Environment Studies strives to prepare the University Environment Policy (UEP) – 2022, which can be a guiding document to develop strategies for sustainable management of natural resources, facilitate a reduction on the dependence on non-renewable energy resources, and waste management with a focus on resource recovery. Thus, the University Environment Policy (UEP) 2022 is a document that provides a base to develop strategies and action plans for sustainable management of the natural resource base of the University Campus, seeks to extend the coverage, and fill in existing gaps, in light of present knowledge and accumulated experience. It does not displace, but builds on the earlier plans and programs, if any, and is essentially an inclusive document to be referred by all potential stakeholders.

The UEP is a response to our national commitment to a clean environment, mandated in the Constitution in Articles 48 A and 51 A (g), strengthened by judicial interpretation of Article 21.

In the Directive Principles of State Policy, Article 48A says "the state shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country"; and Article 51-A states that "it shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures". Thus, it is recognized that maintaining a healthy environment is not the state's responsibility alone, but also that of every citizen. The University Campuses can be microcosms for such participatory approaches to natural resources management and conservation. Thus, a spirit of partnership should be realized throughout the spectrum of environmental management in the university campus. While the University administration must galvanize its efforts, it should also be recognized by each individual/stakeholder, of its responsibility towards maintaining and enhancing the quality of the environment in the University.

1.4. Principles

The UEP – 2022 is governed by certain principles that emphasize the

- Role of stakeholders in the sustainable development processes of BU campus
- The non-negotiability and incomparable value of environmental resources in the campus
- Potential of renewable and perpetual resources to augment campus functioning
- Right to sustainable development for all stakeholders
- Equity in the use of environmental resources and
- The need for a decentralized and multisectoral approach in dealing with environmental issues.

1.5. Objectives

The UEP – 2022 provides guiding principles to accomplish the following objectives:

- Conservation of critical environmental resources in the campus and beyond
- Intra-generational equity
- Integration of environmental concerns in economic and social development (reduction of pressure on BU's financial resources)
- Efficiency in environmental resource use
- Environmental governance

- Enhancement of resources for environmental conservation
- Promoting Environmental Education

2. Key Environmental Issues, Challenges and Potentials

With 250 acres of area, the BU campus has its share of issues, challenges and opportunities w.r.t. natural resources and the potential to tap them. The major prevailing issues and challenges in the BU campus are:

- Conservation of water resources
- Tapping of various renewable and perpetual resources
- Waste management (solid and liquid waste)
- Lack of interest among stakeholders in realizing the natural resource potential of the campus
- Ever increasing financial burden to meet the energy demands of this vibrant university

Thus, to address these issues and challenges, the existing potential to tap the natural resources must be realized which will facilitate in reduction of the financial burden and environmental costs of functioning of this University. Some of the relevant points are enumerated as under:

- Vast area (open/forested) available to facilitate groundwater recharge
- Availability of many big buildings (administrative and academic blocks) for
 - Structured rainwater harvesting
 - Installation of rooftop solar panels
- Availability of intellectual pool and technical know-how for management of
 - Solid waste (through eco-friendly techniques, e.g. vermicomposting)
 - Liquid waste management (availability of low-lying area for a constructed treatment wetland system designed for biofiltration and treatment of liquid waste)

3. Strategy and Action Plan

Having realized the issues and challenges, and the available potential for management of environmental resources base and potential for sustainable development, the following strategies are developed:

- i. **Rainwater Harvesting System:** With an annual rainfall of around 1400 mm, the buildings on the BU campus provide sufficient space to install rainwater harvesting systems. The structured and organized rainwater harvesting systems may be installed in a phased manner covering all the buildings of the university campus. This may be achieved in the next 05 years with the following (tentative) plan:
 - Phase-I: Administrative Building & 1-2 Academic Blocks
 - Phase-II: All the departments/academic blocks
 - Phase-III: All the hostels & residential blocks
- ii. **Roof Top Solar Panel:** Presently, the BU campus has a huge administration building, more than 20 academic buildings, nearly 17 hostels, and several staff quarters (residential buildings). Thus, the roof area available from these buildings would be adequate to install roof-top solar panels, which may help in our strive to make the BU Campus self-reliant w.r.t. energy demands and consumption. Thus, roof-top solar panels can be installed appropriately. The available schemes and subsidies of different line departments of the Government of Odisha and the Government of India may be availed in this endeavor. The proposed plan can be executed in a phased manner in the next 05 years:
 - Phase-I: Administrative Building & 1-2 Academic Blocks
 - Phase-II: 50% of the departments/academic blocks
 - Phase-III: Rest 50% of the departments/academic blocks
 - Phase-IV: All the hostels
 - Phase-V: All the residential blocks
- iii. **Waste Management:** A functional and vibrant university campus will end up generating waste (solid and liquid) from its daily and routine activities. Thus, necessary plans are to be developed for the management of both solid and liquid waste. Some of the proposed strategies are as under:
 - **Solid Waste Management:** This will include the followings:
 - segregation of waste at source into biodegradable and non-biodegradable categories (in separate bins at respective offices and other locations)
 - Coordination with the Municipal authorities for the collection of non-biodegradable waste for further treatment and processing

- Organized collection of biodegradable waste by BU assigned team for relevant treatment methods. Owing to the type of biodegradable waste in the camps (e.g. food waste, flowers), Vermi-technology can be a potential option.
- **Vermi-technology:** Vermi-composting units may be established for the treatment of biodegradable waste, and conversion to organic manure on the campus. For the ease of scaling-up and replication, and to address the operational challenges, it is planned to be developed in a phased manner:
 - Phase-I: A captive vermicomposting unit in girls' hostel premises
 - Phase-II: Replication in Boys' hostel premises
 - Phase-III: Further scaling up to include all the residential blocks, and office complex.

The Department of Environment Studies can provide the technical-knowhow and all the necessary intellectual support in the functioning and management of such units, with necessary financial and human resource support from BU authorities.

- **Liquid Waste Management:** Owing to the large volume of wastewater that is generated from various buildings, an appropriate level of treatment must be offered to the wastewater before its release into the municipal sewerage system. Thus, the following action plan is developed:
 - **Segregation of waste collection:** Being a University campus, most of the wastewater that is generated from various buildings will be a largely organic waste. However, owing to functional laboratories in different science department buildings, chemical waste is also generated. Thus, it is essential that for those departments, a separate wastewater collection system has to be developed without mixing them with routine wastewater (generated from canteen, office, washrooms, etc.).

- **Disposal of unused chemicals and reagents:** BU can register with accredited agencies dealing with hazardous waste collection and treatment. The said agency can periodically come to the BU campus and collect the hazardous waste (unused chemicals and chemical waste) from the Science departments, for their further treatment and safe disposal. This will help in reducing surface and groundwater contamination in the area.
- **Constructed Wetland System:** Since the wastewater generated from the campus will have high organic loading and nutrients, the necessary system can be developed for offering a certain degree of treatment (preliminary, primary and secondary). Although engineering treatment methods prove useful, a well-developed ecological engineering method can be sustainable, environment friendly and cost-effective. Thus, a constructed treatment wetland system can be developed on the campus, which can offer biological treatment and biofiltration systems to the wastewater released from the campus. However, appropriate preliminary treatment is to be offered to the wastewater (bar screens) to remove large solids, and suspended and floatable substances, before their release into the treatment wetland system.


The Department of Environment Studies can provide the technical-knowhow and all the necessary intellectual support in the functioning and management of such units, with necessary financial and human resource support from BU authorities. However, for some of the specific issues, in the initial stage, external collaboration may be required.

- iv. **Environmental Education:** The success of all the aforementioned plans depends solely on the perception, attitude, practice, and acceptability of all the stakeholders in the BU Campus. Thus, periodic extension, outreach and education programs need to be organized, to ensure all-round involvement of all the stakeholders in the

proposed endeavors. Efforts have to be made to induce the element of acceptability in the stakeholders.

The above-mentioned strategic plans, if implemented by letter and spirit, can facilitate the BU campus to become and green campus and make it self-reliant on energy utilization.


Vice-Chancellor
Berhampur University


Head
PG Dept. of Environment Studies
Berhampur University



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BERHAMPUR

DO's

- Sign the Register kept at the Check Point while entering the Library.
- Keep your belongings in proper place.
- Show the Documents, which are taken out of the Library to the Staff at the Check Point.
- Keep the Library Premises Tidy.
- Use the Dustbins provided in the Reading Room.
- Leave the Documents on the table after use, the Library personnel will take care of it.
- Observe silence at all times.
- Shutdown the computer after use.
- Place the chair as it was.

DON'Ts

- Do not move the Books / Journals from its specific area.
- Do not replace the Documents.
- Do not give your Library Card to others.
- Do not use Mobile Phones inside the library and put your Mobile Phones in Silent Mode.
- Do not Photocopy Complete Book / Journal issues. It is violation of Copyright Act.
- Do not disturb any one.
- Do not disturb any arrangements.
- Do not reserve seats or tables.
- Do not Spit Smoke and Shout.
- Do not take Books, Magazines, News Papers and Journals etc. outside of the Library.

[Signature]
24/2/23
Librarian I/c.
R. P. Padhi Library
Berhampur University

[Signature]
24/2/23
DIRECTOR
R. P. Padhi Library
Berhampur University

OFFICE MEMORANDUM

Subject : Nomination of DBT representative in the IBSC of **Berhampur University (BERUNI-1113), Berhampur.**

- In accordance with the Notification of the Ministry of Environment and Forests vide Gazette Notification No. GSR 1037 (E) dated 05.12.1989, notified under the E.P. Act 1986, the Department of Biotechnology (DBT) had evolved the "Regulations and Guidelines on Biosafety of recombinant DNA Research and Bio containment, 2017 " for achieving personnel and environmental safety in the use of genetically manipulated organisms in research, manufacture and applications. The constitution of the Institutional Biosafety Committee (IBSC) is mandatory in R&D Centers at the institutions/ universities/ industries/ any other organization which intends to carry out or are engaged in research activities involving genetic manipulation of genetic materials, microorganisms, plants or animals.
- In conformity with the above, institutions engaged in genetic engineering research constitute their IBSCs and the department nominate its representatives in all such committees. Accordingly, **Dr ARUP KUMAR MUKHERJEE, Principal Scientist, ICAR- National Rice Research Institute, Cuttack, ODISHA** has been nominated to act as a DBT representative in the IBSC constituted at **Berhampur University (BERUNI-1113) , P.G. Department of Biotechnology, Bhanja Bihar, Ganjam, ODISHA-760007 .**

The complete composition of the IBSC is as under:

Chairman	: Dr Jogeswar Panigrahi, Chairman, Berhampur, ODISHA
DBT Nominee	: Dr ARUP KUMAR MUKHERJEE, Principal Scientist, ICAR- National Rice Research Institute, Cuttack, ODISHA
Member Secretary	: Dr Saswat Sourav Mohapatra, Member Secretary, Berhampur, ODISHA
Outside Experts	: Dr Bodhisatta Nandy, Outside Expert, Berhampur, ODISHA
Biosafety Officer	: Dr M V Narasimham, Biosafety Officer, Berhampur, ODISHA
Internal Experts	: Dr Aditya Kumar Panda, Internal Member, Berhampur, ODISHA## Dr Biswa Ranjan Meher, Internal Member, Berhampur, ODISHA## Dr Sushil Kumar Pathak, Internal Member, Berhampur, ODISHA## Dr Tapan Kumar Barik, Internal Member, Berhampur, ODISHA

- The DBT nominee serves as link between department and the respective IBSC. The nominee should ensure that:
 - handbook on IBSC, Third revised edition, September 2020 is followed by IBSC,
 - the committee has been constituted as per the norms of the guidelines,
 - the Recombinant DNA Safety Guidelines are strictly followed in the company,
 - the IBSC meets regularly (at least twice in a year) to review the ongoing activities and provide yearly reports to RCGM/ DBT in the prescribed proforma,
 - all the activities within the purview of the guidelines are in the knowledge of RCGM/DBT and to guide the IBSC on biosafety issues.
 - the IBSC will follow the 'Simplified Procedures/Guidelines on Exchange(inter-state and inter-institutional supply/ receipt within India), Import and Export of Genetically Engineered Organism and Product(s) thereof for research Purpose', as per Department's OM dated 22.09.2015 and its revised version issued vide DBT OM dated 17.01.2020.
- He/she will work for 3 years on the respective committee. On the expiry of term of nominee, institution/ organizations are required to reconstitute its IBSC in prescribed proforma.**
- The DBT, on the expiry of the term of its nominee shall re-nominate or appoint a new nominee, and such nomination shall be communicated to the institutes/ organizations.
- Any special invitee/s to IBSC should be communicated to RCGM/ or taken prior approval.
- The IBSC of the institution will meet at least twice in a year. The institutes having the IBSC are required to submit yearly report of progress (1st January to 31st December) within one month, following the expiry of the period of Progress Report to the DBT for enabling the proper monitoring and consolidation of this information by the RCGM and the Government.**
- The institute will meet the TA/DA & honorarium to the DBT nominee as per the GOI norms.

To

Dr Jogeswar Panigrahi, Chairman, Berhampur, ODISHA

Copy to:

- Dr ARUP KUMAR MUKHERJEE, Principal Scientist, ICAR- National Rice Research Institute, Cuttack, ODISHA
- Dr M V Narasimham, Biosafety Officer, Berhampur, ODISHA
- Office Copy
- Guard file


Member Secretary,
RCGM, DBT


Member Secretary,
RCGM, DBT

डॉ. नितिन कुमार जैन / Dr. NITIN K. JAIN
वैज्ञानिक 'एफ' / Scientist 'F'
बायोटेक्नोलॉजी विभाग / Deptt. of Biotechnology
विज्ञान और प्रौद्योगिकी मंत्रालय / M/o Science & Tech.
भारत सरकार, नई दिल्ली / Govt. of India, N. Delhi