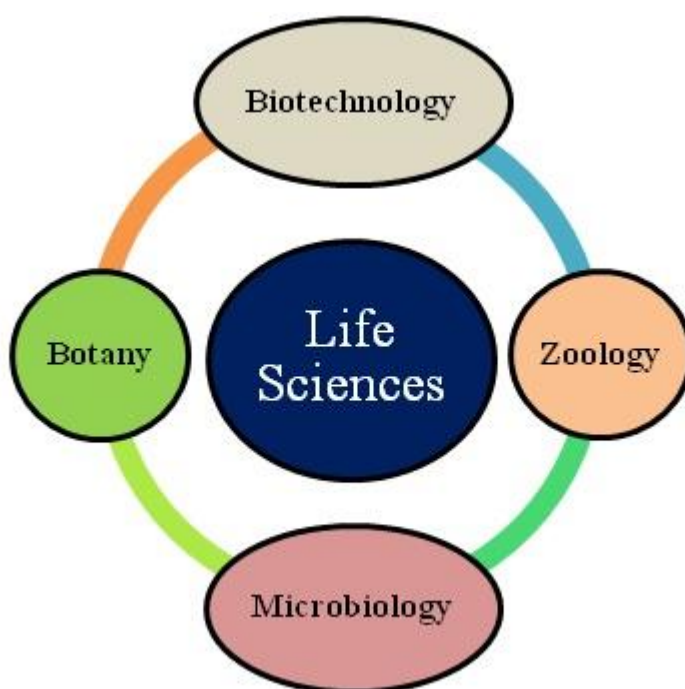


## Department of Life Sciences

The Department of Life Science has privilege to welcome you to the web of the dept., one of the major departments which encompass four major branches namely; Biotechnology, Botany, Microbiology and Zoology. The department is engaged in teaching at both undergraduate and post-graduate levels. The thrust areas of research in the school are Biodiversity and Bioresources, Cyanobacterial Biotechnology, Ecology and Environment, Ethnobiology and Ethnomedicine, Food technology, Plant response to abiotic stresses, Phytoremediation of heavy metal and deleterious Synthetic Dyes decolorization and Protein purification and characterization. The department is well equipped with necessary research infrastructure. The department offers a project based research enabled environment to the post-graduate students.

### **Vision**

To develop program inspires innovation and entrepreneurial thinking attaining the new heights in the field of life sciences research. By shaping biology into a premier, exactitude tool of future for creation and maintenance of natural resources, as well as wealth and ensuring social justice- especially for the well-fare of the society.



### **Courses:**

#### **B.Sc./UG**

3 years B.Sc. in Zoology, Botany, and Chemistry

Eligibility: Higher Secondary in Science/Biological Sciences/Agriculture science combination

3 years B.Sc. in Biotechnology, Zoology, and Chemistry

Eligibility: Higher Secondary in Science/Biological Sciences/Agriculture science combination

M.Sc./PG

2 years M.Sc. in Biotechnology

2 years M.Sc. in Botany

2 years M.Sc. in Microbiology

2 years M.Sc. in Zoology

Eligibility: B.Sc. in Life Sciences (Biotechnology, Botany, Zoology, Microbiology)

Ph.D./ Doctoral programme

The prospective students are advised to contact concerned faculty/Department for doctoral programme

### **Faculty members:**

#### **Dr. Muhammad Kafeel Ansari**

Designation: Assoc. Professor

Qualification: M.Sc., Ph.D., F.C.R.F., D.S.K.F., E.R.F. (Australia)

Research Area: Cyanobacteria biotechnology, Heavy metal toxicity, deleterious synthetic dyes decolorization, Abiotic stress, Phytoremediation/Bioremediation, Stress tolerance in plants, Environmental botany, Environmental engineering and Protein purification & characterization

#### **Dr. Sampat Ghosh**

Designation: Assoc. Professor & Head

Qualification: M.Sc., Ph.D.

Research Area: Nutritional Ecology, Alternative food resource, Ethnobiology, Food security, Pollinator biology

#### **Mr. Rajesh Kumar Lilhare**

Designation: Assoc. Professor

Qualification: M.Sc., M.Phil

Research Area: Environmental Microbiology

#### **Miss. Shubhi Mishra**

Designation: Asst. Professor

Qualification: M.Sc., Ph.D. (Thesis submitted)

Research Area: Bacteriology, Enzymology, Environmental Sciences, Food safety,

#### **Mr. Chandrakant Baheshwar**

Designation: Asst. Professor

Qualification: M.Sc.

Specialization/Research Interest: Environmental Sciences, Biodiversity & Wildlife

**Mr. Mahendra Bahgele**

Designation: Laboratory Assistant

Qualification: M.Sc.

Specialization/Research Interest: Ichthyology

**Facilities:**

**Laboratory Instrumental facilities:**

Autoclave, BOD Incubator, Centrifuge, Chromatography unit: paper chromatography, Thin Layer Chromatography (TLC), Compound microscope, Electrophoretic unit: Submarine gel electrophoresis, SDS-PAGE electrophoresis, Hot Air Oven, Laminar Air Flow, Refrigerator, Shaker, Water bath

**Specimen:**

Animal specimens of different phylum

**Departmental Activities:**

Coming soon

**Publication:**

Coming soon

# Welcome to Department of Botany

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The Department of Botany was established in the year 2018 with an aim to impart teaching with strong components of plant and environmental sciences and, research in various areas of contemporary biological sciences. Botany is fast moving from being a descriptive field to an exact science, a transition that will increasingly require inputs from all branches of Life Sciences. In addition to well equipped teaching and research laboratories, the Department is poised to have a Hydroponics system, Cyanobacterial cell culture and Green House facilities and also a Central Instrumentation Facility, which houses such equipments as Centrifuges, Spectrophotometers, Shakers, Microscopes, Freezers, Gel electrophoresis Unit, pH meters and Water Bath System. These facilities underpin experimental research in a range of biological processes, from Plant Stress Physiology, Phytoremediation, Decolourization of deleterious synthetic dyes, Molecular characterization of proteins, Environmental biotechnology to Cyanobacterial Engineering.

The research experience of our faculty members is brought to the classroom, imparting students a sense of excitement and knowledge of the cutting edge technology of the discipline.

## **The objectives of the Department are:**

1. To promote scientific research, advanced teaching, and a training in chosen areas of biological sciences;
2. To provide a forum for interaction of students with scientists, research scholars, teachers and eminent subject experts;
3. To provide research facilities for research leading to PhD degrees;
4. To conduct seminars, workshops, and extension lectures to promote fruitful research in biological sciences particularly in Botany.

## **Thrust areas of research in the Department**

- Plant response to heavy metal and environmental stresses
- Environmental Management & Environmental Engineering
- Phytoremediation technology
- Stress tolerance in plants
- Heavy metal/synthetic dyes toxicity
- Protein purification & characterization
- Cyanobacterial Engineering

## **Research Facilities (To be created soon)**

The Department is going to develop well-equipped laboratories for research. The equipments to be managed soon include Growth chambers, BOD incubators, Refrigerated microfuges, Laminar air flow, Shakers, Spectrophotometer, Centrifuge, Deep freezer (-20), IRGA (Photosynthesis System), and Leaf area meters. A modest Green House will also be made available soon.