



SARDAR VALLABH BHAI PATEL COLLEGE

(A CONSTITUENT UNIT OF V.K.S.U., ARA)

Bhabua, Kaimur – 821101 BIHAR

Accredited by NAAC – 'B' Grade

Website :- www.svpcollegebhabua.org

E-mail



Departmental Presentation for NAAC Cycle 2- Assesment period 2017-22

Department of Zoology

Head of Department: Dr SP Sharma

Co-ordinator: Dr Anand Prakash



Department

The Zoology Department at Sardar Vallabhbhai Patel (SVP) College, Bhabua offers comprehensive undergraduate programs in Zoology. The department emphasizes both theoretical knowledge and practical skills in biological sciences.

Date of establishment: 1957

Nature of course offered Department: Government funded

University affiliation: Veer Kunwar Singh University, Ara

Number of lab in Zoology Department: UG Lab-01+Research Lab-02

Students' enrollment from 2018-2022 in UG Zoology: 472

Number of faculties in Zoology Department: 1 (01 permanent + 0 Guest/other)

Non-teaching Staff: 01

Admission process: Online Merit Based through university

VISION

Excel in education and research in Zoology, understanding animal life and biodiversity.

MISSION

Provide high-quality education in zoology through innovative teaching, hands-on research, and community engagement.

Stimulate scientific curiosity and critical thinking in students for addressing biological and ecological challenges.

Promote conservation of biodiversity through awareness programs, research initiatives, and collaborative efforts.

Prepare students for careers in academia, research, environmental management, and related fields.

OBJECTIVE

Impart comprehensive knowledge of animal biology, physiology, ecology, evolution, and biodiversity.

Develop scientific skills, critical thinking, and a spirit of inquiry among students.

Encourage research in areas like wildlife conservation, molecular biology, environmental biology, and taxonomy.

Equip students with practical skills through laboratory work, field studies, and project-based learning.

Prepare students for careers in research, academics, environmental consultancy, healthcare, and industry.

Instill ethical values and social responsibility towards animals and the environment.

Teaching staff

Nand Prakash:

Position: Assistant Professor and Head of the department

Qualification: M.Sc Zoology, NET-JRF: Life Science, PhD: Zoology

Joining: 31/08/2019

Research Area: Cancer Biology, Molecular Cytogenetics, Environmental Science and

Ravinish Prasad (Transferred to the other job)

Position: Assistant Professor (Guest)

Qualification: M.Sc, PhD in Zoology

Joining: 2021-2023

Research Area: Fish Biology, Animal Taxonomy and Diversity, biochemistry and physiology

Teaching/Support staff

Anil Kumar:

Position: Multi-tasking Staff

Qualification: B.A.



Faculty Academic achievements (Awards, Research, Memberships)

Anand Prakash

List of Publication

DR ANAND PRAKASH-

- Prakash A, Human Papilloma Virus induced Cervix Cancer: Involvement of various factors. *Indian Cell biology newsletter* 48:1, 43-48, 2025. ISSN: 2349-8307
- Prakash A, Patel Y, Roy JK. BRN3A, a transcription factor, regulates the genes involved in biological processes shaping the HPV induced cervical cancer. *Genomics*. 2025 Jan 28 (IF-1.6).
- Prakash A, Das Purkayastha BP, Srivastava S, Chaturvedi S, Ali A, Aggarwal JK. Novel Variant Identified in the Enhancer Region of Host Transcription Factor BRN3A, is a Significant Risk Factor for HPV-Induced Uterine Cervix Cancer. *Cell Med*. 2022;11(2):88-103. doi: 10.22088/IJMCM.BUMS.11.2.88. Epub 2022; PMID: 37091039; PMCID: PMC10116355.
- Singh PP, Rai SK, Chaubey G, Prakash A (2023). Estimation of real CO₂ in India during the first wave. *IJID Reg*. 6:80-83. doi: 10.1016/j.ijregi.2023.12.7
- Patel Y, Prakash A, Patel AK, Vishwakarma SK (2020). Pleurotus species as a source of nutraceuticals including vitamin B12 and lignocellulosic degradative enzymes. *Biotechnol*. 9(1): 33-46.
- Pandey A, Asthana AK, Prakash A, Roy JK, Tiwari I, Upadhyay KK (2019). Hydrolytic and restructuring approach through a Schiff base design on a platform for "turn-on" fluorogenic sensing of Zn²⁺. *Dalton Trans* 48:6 I.F. - 4
- Dubey A and Prakash A (2017). Rab proteins in human cancer. *Cell biology* 36:2, 23-29, ISSN: 2349-8307

SKILLS

- Computer skill in MS Office, Photoshop, Coral draw, Sigma Plot.
- Animal, Human Cell Culture Techniques, Bacterial Culture, Recombinant DNA technology, Cloning, Microbiology
- Molecular Biology and Cancer Biology techniques DNA/ RNA Isolation PCR, Site directed mutagenesis, Real Time PCR, RT-PCR, Blot, EMSA, CHIP, IP, Co-IP, Luciferase Assay, MTT Assay, Immunofluorescence, Immunohistochemistry etc.
- Microscopy, Inverted MS, fluorescence MS, Confocal MS

AWARDS

- CSIR-NET 2010 (Dec)
- CSIR-NET/ JRF 2011 (Dec)
- GATE 2010
- ICMR SRF- 2017

MEMBERSHIP

- Indian Society of Cell Biology, <https://iscb.co.in/>, LIFE Member
- Zoological Society of India, Gaya, <https://www.zoologicalsocietyofindia.com/> Member

avinish Prasad

Sl.No.	Title of the paper	Name of the journal	Volume year	Volume No.
1	Evaluation of relative morphometric patterns of an Indian Major carp (<i>Labeo rohita</i>)	International Journal of Research and Analytical Reviews (IJRAR).	2018.	Issue 3
2	Effect of cumin on blood glucose level and kidney functions tests on diabetic induced mice.	International Journal of Research and Analytical Reviews (IJRAR).	2019.	Issue 2
3	Rate of deterioration of water quality of river Karamnasa and its impact on primary productivity at Buxar, Bihar	International Journal of all research writings (IJARW).	2020	Issue 7
4	Study of variation among phytoplanktonic density due to season change in the water of river Karamnasa at Buxar, Bihar.	International Journal of creative and Innovative Research in all studies	2020	Issue 9
5	Impact of COVID-19 on Improvement of surface water quality of river Ganga at Buxar, Bihar.	Journal of entomology and zoology studies.	2021	Issue 5
6	Seasonal variation in physic-chemical parameters of the water of river Karamnasa at Buxar, Bihar.	BIOSPECTRA (An international journal of life science).	2021	Issue 1

Course offered

At UG level

Biology- 16 paper (80 Credit)

MIC- Zoology- 10 Paper (31 Credit)

MDC-Zoology- 03 paper (03 Credit)

MJC

• Diversity of Chordates- (S-1, P-1)
• Diversity of Non-Chordates (S-2, P-2)
• Comparative anatomy (S-3, P-3)
• Cell Biology (S-3, P-4)
• Ecology (S-4, P-5)
• Zoology (S-4, P-6)
• Developmental Biology (S-4, P-7)
• Evolution (S-5, P-8)
• Endocrinology (S-5, P-9)
• Developmental Biology (S-6, P-10)
• Animal Behavior (S-6, P-11)
• Animal Behavior (S-6, P-12)
• Comparative Biology (S-7, P-13)
• Methodology (S-7, P-14)
• Zoology and microbiology (S-8, P-14)
• Quantitation and Biometry (S-9, P-15)

MIC

- Diversity of Chordates- (S-1, P-1)
- Diversity of Non-Chordates (S-2, P-2)
- Physiology (S-3, P-4)
- Cell Biology (S-4, P-5)
- Ecology (S-5, P-7)
- Genetics (S-5, P-9)
- Developmental Biology (S-6, P-10)
- Evolution (S-6, P-11)
- Endocrinology (S-7, P-6)
- Animal Behavior (S-8, P-12)

MDC

- Diversity of Chordates- (S-1, P-1)
- Diversity of Non-Chordates (S-2, P-2)
- Physiology (S-3, P-3)

Syllabus UG-Zoology access links for students
<https://governor.bih.nic.in/regulations/>

Program Outcome

At the completion of the programme, students will attain:-

Disciplinary knowledge: Acquire comprehensive knowledge of major concepts, theories, principles and experimental findings in Zoology, and some of the applied areas of study such as life conservation and management; environmental science; various techniques, instruments and methods for analysis of animal forms and functions.

Effective communication and Critical thinking: Convey the intricate zoological information effectively and efficiently, analyze and solve the problems related to animal sciences with reasoning on assumptions and guesses.

Research & Leadership quality: Recognize and mobilize relevant resources essential for a research project, and manage the project in a responsible way by following ethical scientific conduct and bio-safety protocols.

Digitally literate and Ethical awareness: Use computers for computation and data analysis using appropriate software for biostatistics, and employ search tools to locate and retrieve relevant information, recognize and avoid unethical behaviour such as fabrication, or misrepresentation or commit plagiarism.

Environment and Sustainability: Understand the environmental and sustainability issues, and engage in self-paced and self-directed learning aimed at personal and social development.

Course Outcome

Diversity of Chordates

- Understand the classification, characteristics, and evolutionary relationships among chordates.
- Identify anatomical adaptations in chordates across different habitats.
- Analyze the comparative morphology and physiology of vertebrates and protochordates.

Diversity of Non-Chordates

- Classify and describe the diversity of non-chordate animals.
- Understand the organization, adaptations, and life cycles of major invertebrate phyla.
- Analyze evolutionary trends among non-chordates.

Comparative Anatomy

- Compare organ systems (digestive, respiratory, circulatory, etc.) across vertebrates.
- Understand the structural adaptations related to different modes of life.
- Analyze functional modifications during vertebrate evolution.

Physiology

- Understand the mechanisms of physiological processes in animals.
- Analyze functions of organ systems like circulatory, excretory, and nervous systems.
- Apply physiological concepts in medical and biological research.

Cell Biology

- Understand the structure and function of cellular organelles.
- Analyze cell communication, signaling, and division processes.
- Investigate molecular mechanisms behind cellular activities and diseases.

Endocrinology

- Understand the structure, secretion, and function of endocrine glands.
- Analyze hormonal regulation and its physiological effects.
- Evaluate endocrine disorders and their impact on human health.

Ecology

- Understand ecosystem structure, function, and energy dynamics.
- Analyze biodiversity conservation and environmental issues.
- Apply ecological principles in sustainable resource management.

Biochemistry

- Understand biomolecules like carbohydrates, proteins, lipids, and nucleic acids.
- Analyze metabolic pathways and enzyme functions.
- Apply biochemical principles to physiological and pathological conditions.

Genetics

- Understand the principles of inheritance and molecular genetics.
- Analyze genetic variations and mutations.
- Apply genetic concepts in biotechnology, medicine, and conservation.

Developmental Biology

- Understand the processes of gametogenesis, fertilization, and embryogenesis.
- Analyze mechanisms of morphogenesis and organogenesis.
- Evaluate the role of genes and environment in development.

Evolution

- Understand evolutionary theories and evidences.
- Analyze patterns and mechanisms of evolution, speciation, and adaptation.
- Evaluate molecular evolution and phylogenetic relationships.

al Behavior

Understand basic concepts of animal behavior and communication.
Analyze the evolutionary significance of social behaviors and instincts.
Apply behavioral studies to conservation and wildlife management.

cular Biology

Understand molecular mechanisms of replication, transcription, and translation.
Analyze gene expression, regulation, and genetic engineering techniques.
Investigate molecular causes of genetic disorders.

arch Methodology

Understand the basics of scientific research design and ethics.
Apply appropriate methodologies in biological experiments and surveys.
Analyze, interpret, and present research data effectively.

inology and Microbiology

Understand immune system structure, functions, and response mechanisms.
Analyze the role of microbes in health, disease, and industry.
Apply immunological and microbiological techniques in diagnostics and research.

umentation and Biometry

Understand principles and applications of biological instruments (microscopy, spectrophotometry, graphy).
Analyze biological data using statistical tools.
Apply biometry and instrumentation techniques in scientific research.

Time Table-Zoology

Department of Zoology
Sardar Vallabhbhai Patel College Bhabua, Kaimur Bihar

Time-Schedule

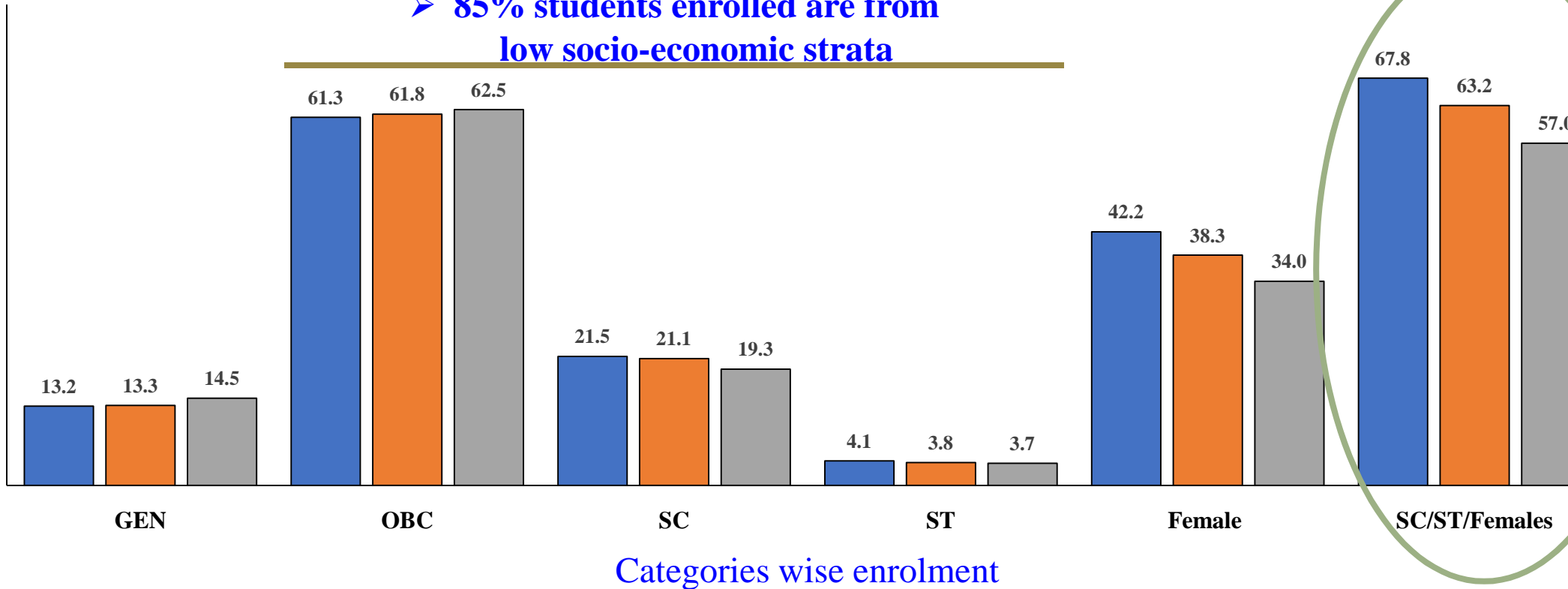
DAY	9:30- 10:20 AM	10:20-11:10 AM	11:10- 12:00 AM	12:00-12:50 PM	12:50-01:40 PM	01:40-2:30 PM
Monday	B.Sc B.Sc Sem I / II -MJC	B.Sc B.Sc Sem -III/IV -MJC	B.Sc B.Sc Sem -V/VI - MJC	B.Sc Hons/B.Sc Sem-VII/VIII -MJC Practical/ Tutorial		
Tuesday	B.Sc B.Sc Sem I / II -MJC	B.Sc Sem-III/IV-MJC	B.Sc Sem-V/VI-MJC	B.Sc Hons-III/B.Sc Sem-VII/VIII -MJC Practical/ Tutorial		
Wednesday	B.Sc B.Sc Sem I / II -MJC	B.Sc Sem-III/IV-MJC	B.Sc Sem-V/VI-MJC	B.Sc Sem-III/IV -MJC Practical/ Tutorial		
Thursday	B.Sc-B.Sc Sem I / II tutorial/ practical -MJC		B.Sc -B.Sc Sem I/II- MJC	B.Sc Sem-III/IV	B.Sc Sem-III/IV-MIC -MDC Practical/Tutorial	
Friday	B.Sc B.Sc Sem I / II-MIC tutorial/ practical		B.Sc B.Sc Sem I / II- MDC	B.Sc Hons-III/B.Sc Sem-VII/VIII	B.Sc Sem-I/II- MIC/MDC	
Saturday	B.Sc B.Sc Sem I / II-MDC tutorial/ practical		B.Sc B.Sc Sem I / II- MIC	B.Sc Hons-III/B.Sc Sem-VII/VIII -MJC	B.Sc B.Sc Sem III- MDC	

Student Enrollment

Students Enrolment (in %)

■ 2021-24 ■ 2020-23 ■ 2019-22

➤ 85% students enrolled are from low socio-economic strata



S.V.P. College, Bhabua (Kaimur)

Result Analysis

Hons. Subject:- **ZOOLOGY**

S. No.	Session	Total Students	Pass Students	Fail/Absent Students	Withheld/Promoted Students	First
1	2018-21					Marks Above 6
	I					
	II	58	54	03	01	23
	III	36	36	00	00	31
2	2019-22					
	I	36	24	02	00	24
	II	39	37	01	01	34
	III	39	38	01	00	37
3	2020-23					
	I	63	48	10	05	33
	II					
	III	47	46	01	00	43
4	2021-24					
	I					
	II	45	43	01	01	43
	III	44	43	01	00	43
5	2022-25					
	I	65	58	04	03	48
	II					
	III					

Teaching Learning process

Off-line teaching Methods

Online Teaching Methods

Black Board Teaching

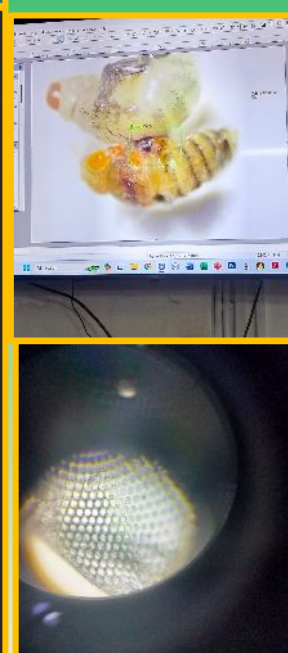
Google Class room

ICT-Based Teaching

Google meet

Hands on Learning/Practical's

Online content



ts Evaluation Process

Internal/mid-term Evaluation

Weightage 30/100 Marks

Assignment, Quiz, Lab Seminar

Internal Test

Project Work

End Term Evaluation

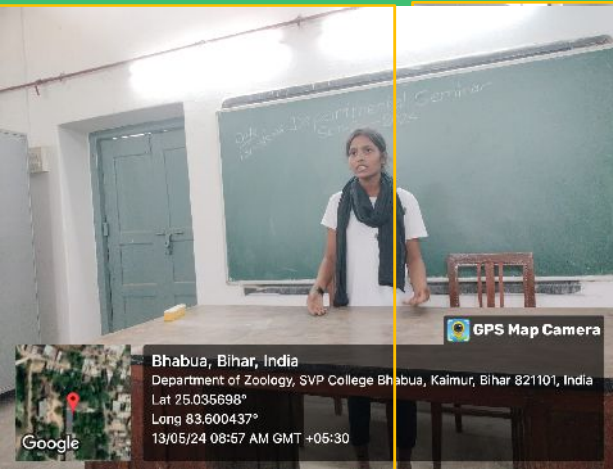
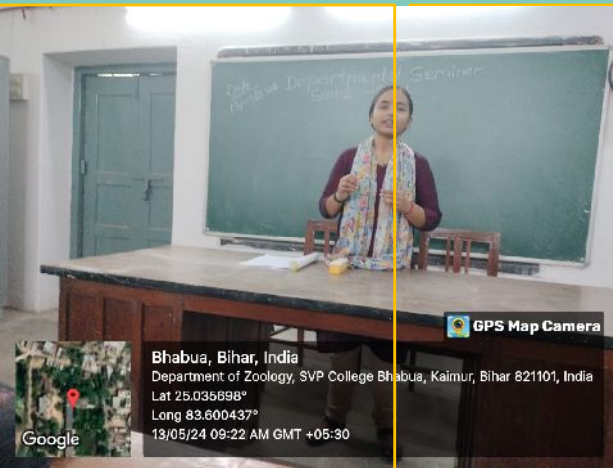
Weightage 70/100 Marks

End throty Term Exam

End Term Practical Exam

Reserch Desertation in 7th Sem

Lab Seminar



Number of Seminar/ Workshop Conducted in the department

Kind of program	Number	Links
Seminar	05	https://svpcollegebhabua.org/Activities in Science Department.pdf
Conference	00	
Workshop	01	https://www.svpcollegebhabua.org/index.php?file=dbtstar&pages=DBT%20Gallery
Faculty Development Program	00	
Capacity Building Program	02	https://www.svpcollegebhabua.org/index.php?file=dbtstar&pages=DBT%20Star%20Programme%20Activities



Career Paths – Prospective Avenues in Highly Specialized Professional Courses, Human Genetics & Clinical Research, 22/08/2022

**One day's Seminar on intellectual property right
Date : 24/09/2024**



Year	Name of Event	Link
2022	Career Paths – Prospective Avenues in Highly Specialized Professional Courses, Human Genetics & Clinical Research”	
2024	Induction program for B.Sc Students under DBT Star College Scheme	https://www.svpcollegebham.com/file=dbtstar.php&&pages=ramme%20Activities#
2024	One day workshop on plant identification strategies	https://www.svpcollegebham.com/file=dbtstar.php&&pages=ramme%20Activities#
2024	Awareness program on World contraception day ‘सही जानकारी , सुरक्षित विचार एवं खुशहाल भविष्य’	https://www.svpcollegebham.com/file=dbtstar.php&&pages=ramme%20Activities#
2024	One-Day Seminar on Intellectual Property Rights	https://www.svpcollegebham.com
2025	Popular Lecture on ‘Evolving landscape of Research Methodology’	https://www.svpcollegebham.com
2025	One day national seminar on advances in cancer research and Treatment	https://www.svpcollegebham.com
2024	One Day seminar on Advances in Drug Development	https://www.svpcollegebham.com

Zoology Department Infrastructure



Bhabua, Bihar, India
Zoology Department, SVP College Bhabua,
Bhabua, Bihar 821101, India
Lat 25.03577° Long 83.600445°
24/04/2025 12:46 PM GMT +05:30



Bhabua, Bihar, India
Zoology Department, SVP College Bhabua, Bhabua,
Bihar 821101, India
Lat 25.03577° Long 83.600445°
24/04/2025 12:47 PM GMT +05:30



Bhabua, Bihar, India
Biotech ICT Lab, SVP College Bhabua, Bhabua, Bihar
821101, India
Lat 25.03547° Long 83.600284°
24/04/2025 12:26 PM GMT +05:30

Department

B.Sc Lab

ICT-Lab

Chemistry Lab

Microscopy Lab

Departmental Library

Student Support System

Student Mentorship

Career Counselling

Placement cell

Student Apprenticeship

Government funded Scholarship to the students

Free Admission for Girls/ST/SC Students

Eco-Club Activities

RO Water Facility with Cooling

SWOC Analysis of Zoology Department

Strengths (S):

-qualified, experienced, and dedicated faculty members.

Following CBSC and NEP-2020 based curriculum combining theoretical knowledge and practical skills.

Financially supported under DBT-STAR College Program to support UG curricular in science to promote

Hands-on learning

Availability of laboratory facilities and equipment for hands-on learning.

Active involvement in research, fieldwork, and projects.

Weaknesses (W):

Limited funding for advanced research and infrastructure development.

Need for modernization of laboratories with latest technology.

Need to increase teacher and technical staff strength to meet existing academic requirements.

Need for structural development as per the need of increasing students and 4 yr UG Course

Need for more collaborations with national and international research institutions.

Need to provide adequate placement support to the pass out students.

Opportunities (O):

Increasing demand for zoologists in environmental conservation, wildlife management, and technology industries.

Plan to introduce PG course and new specializations like fish and fisheries , and Environmental Technology.

Collaboration with NGOs, forest departments, and research labs for student internships, excursion projects.

Challenges (C):

Competition from emerging life sciences fields like Microbiology, Biochemistry, Biotechnology, Molecular Biology, Genetics.

Declining interest of students in basic sciences in this area due to rural background with underprivileged section with low socio-economic strata.

Future Plans

Certificate Course in Pearl-Culture techniques

M.Sc. Course in Zoology

Soil and water analysis for the nearby communities of Kaimur District

Collaboration with Research labs and NGOs

Study of Biodiversity Kaimur District



Thank you....