WELCOME TO NAAC PEER TEAM

DEPARTMENT OF ZOOLOGY

MAHAMAYEE MAHILA MAHAVIDYALAYA

BERHAMPUR, GANJAM

ODISHA

ABOUT THE DEPARTMENT:

- The Department of Zoology, was established in the year 1986-87. In the year 1997-98 the + 3 degree (UG) in Zoology was started under Berhampur University.
- During 2004-05 session the Honours course in zoology was introduced. The Department consists of four faculty members, one laboratory assistant and one lab attendant.
- With the continuous effort of students and faculty members of Zoology Department, it is deliberately endeavoring its excellence in teaching and learning process.
- Department also takes credit for making its own Seminar Library with more than 380 books.
- A seminar bulletin inagurated for 2^{nd} and 3^{rd} year students in each annual day.

PIONEER HODs OF THE DEPARTMENT

Dr. Soudamini Mohapatro, M.Sc, PhD 1986-1987

Dr. Subasini Pattnaik, M.Sc, PhD 1987-1988

Dr. Nibedita Mahapatro, M.Sc, PhD 1988-2018

Dr. S.B.K Achary, M.Sc, PhD 2018-2022

Dr. Nibedita Mahapatro, M.Sc, PhD 2022-Cont.

VISION AND MISSION OF THE DEPARTMENT:

- The Department promote the placement and broad knowledge about the aspects to generate higher quality value of biology of animals through holistic development of the students and make them able to contribute effectively for the all-round development of sustainability of healthy society.
- Our mission is to promote increased environment awareness and conservation through skill excellent teaching skill for animal care and management Practices coupled with Positive transformation of society through empowerment of comprehensive training in theoretical and practical knowledge of zoology to students.

IMPORTANCE OF THE DEPARTMENT:

- Department of Zoology is vital in understanding Biodiversity, Animal biology and Ecologial relationships.
- They also participate in conservation and ecology work, animal behavior studies, and physiological investigations.
- It can also be used in human health as well by allowing us to learn more about pathogenic diseases and track the health of our ecosystem.
- Besides, zoologists also make a significant contribution in the development of agriculture by helping to control pests and diseases on livestock.

OBJECTIVE OF OUR DEPARTMENT:

- Besides, Our goals and objective is to motive students to conduct seminars, workshops, on the topics included in the curriculum that will help in achieving academic excel and exposure.
- Also, by conducting educational tour to giving exposures to the students by visiting Zoological Park , Diary Industries, Sericulture, Fisheries and Pisciculture, Poultry Farm, Research Centre (NISER) Biotechnology, Microbiology and Biochemistry Practical Laboratory (CPS Mahuda) for animals etc.
- To equip students with adequate practical skills that enable students to produce leadership in science and technology and to concentrate on applied science aspects.

FACULTY MEMBERS:

Sl. No.	Name of Faculty	Qualification	Designation	Specialization	No. of Years of Experience
1. 	Dr. Nibedita Mahapatro.	MSc. ,Phd	Reader(SS)	M.Sc.(Fish and Fisheries); PhD(Ageing)	35 Years
2. 	(Mrs.) Samita Sahu	MSc.,M.phil.	Lecturer	M.Sc.(Fish and Fisheries) MPhil.(Cytogenetics) PhD Contd.	12 Years
3. 	(Mrs.) Ashakiran Panda	MSc.	Lecturer	MSc.(Biochemistry) PhD Contd	12 Years
4. 	Miss Subhasri Tripathy	MSc.	Lecturer	M.Sc. (Microbiology)	1 Years
5. 	(Mrs.) Anita Kumari Choudhury	BSc	Lab. Assistant		23 Years

STRENGTH

Qualified and experienced faculty.

Well established departmental library.

High success rate of students in examination.

Participation of students in extracurricular activities.

Student friendly atmosphere.

WEAKNESS

Lack of well-equipped infrastructure.

- Lack of transportation facility for students enrolled from remote areas.
- Restricted Access to Specimens.

OPPORTUNITIES

Scope for field-based research activities.

Confidence building through conducting seminars, group discussions and personality development, interactive sessions and preparing syllabus relevant projects.

Students are motivated and guided by the faculty members to get higher degree and appear in NET, GATE, SLET and other competitive exams.

CHALLENGES

Limited Research Opportunities

Inadequate Practical Learning

Collaboration Constraints

Limited Exposure to Modern Techniques

Resource Allocation

Fieldwork Dependency

CURRICULUM:

- The zoology curriculum encompasses a range of courses designed to provide students with a comprehensive understanding of animal diversity, physiology, and ecological principle, biochemistry, microbiology, genetics, biostatistics, wildlife conservation and animal behaviour etc.
- It equips students with a strong foundation in animal biology, ecology, genetics, and evolution. Through practical lab and fieldwork, students gain valuable research, problem-solving, and technical skills.

- The curriculum prepares graduates for careers in wildlife conservation, ecology, veterinary science, and biomedical research. It also provides interdisciplinary opportunities in biotechnology, genetics, and environmental policy. Zoology students can contribute to global challenges such as climate change, biodiversity loss, and species conservation by understanding animal behavior, physiology, and ecosystems.

- The program also serves as a stepping stone for further studies in veterinary medicine or advanced biological research. In essence, a Zoology degree prepares students for diverse roles in scientific research, environmental management, and health-related fields.

CORE COURSE	COURSE NAME
Core-I	NONCHORDATA – 1
Core-II	ECOLOGY
Core-III	NONCHORDATA – 2
Core-IV	CELL BIOLOGY
Core-V	DIVERSITY OF CHORDATA
Core-VI	PHYSIOLOGY OF LIFE CONTROLLING SYSTEM
Core-VII	FUNDAMENTAL OF BIOCHEMISTRY AND MICROBIOLOGY
Core-VIII	COMPARATIVE ANATOMY OF VERTEBRATES
Core-IX	PHYSIOLOGY OF LIFE SUSTAINING SYSTEMS
Core-X	BIOCHEMISTRY OF METABOLIC PROCESS
Core-XI	MOLECULAR BIOLOGY
Core-XII	PRINCIPLES OF GENETICS
Core-XIII	DEVELOPMENTAL BIOLOGY
Core-XIV	EVOLUTIONARY BIOLOGY
Disciplinary Specific Elective (DSE)	
DSE-I	ANIMAL BEHAVIOUR AND CHRONOBIOLOGY
DSE-II	IMMUNOLOGY
DSE-III	WILD LIFE CONSERVATION AND MANAGEMENT
DSE-IV	PROJECT

PROGRAMME OUTCOME

Non-Chordates I & II: Students explore the classification and evolutionary significance of non-chordate organisms and coelomates, enhancing their knowledge of anatomical adaptations.
Principles of Ecology: This course emphasizes ecological interactions and conservation strategies, equipping students to assess environmental impacts.
Cell Biology: Students learn about cellular structures and processes, including metabolism and signaling pathways, essential for understanding life at a molecular level.
Diversity of Chordates: Focuses on the identification and classification of chordates, examining evolutionary trends within this phylum.
Physiology: Covers the mechanisms of controlling and sustaining life systems, including nervous and endocrine responses, and homeostasis.
Biochemistry and Microbiology: Integrates biochemical principles with microbial techniques, exploring metabolic pathways and their ecological roles.
Comparative Anatomy: Compares vertebrate anatomy to infer evolutionary relationships, while courses in molecular biology and genetics deepen understanding of genetic mechanisms.
Developmental and Evolutionary Biology: Students study organismal development and evolutionary theory, evaluating the evidence for evolution and its implications for biodiversity.
Overall, these courses prepare students for careers in research, conservation, and applied biological sciences.

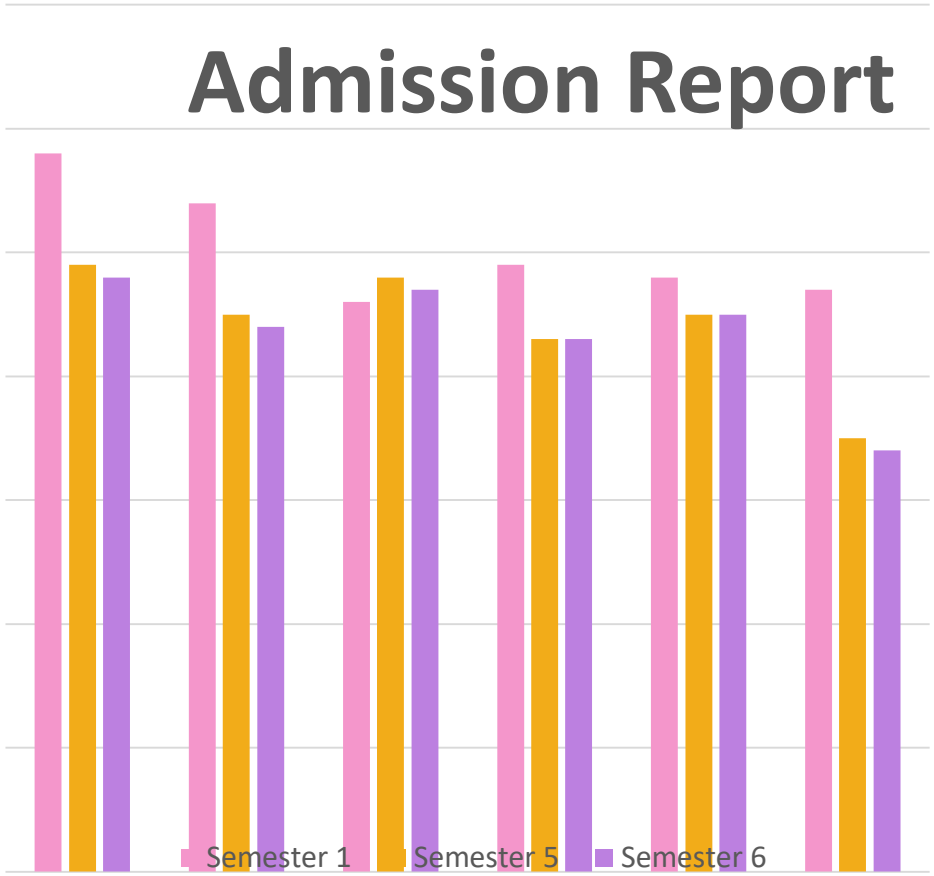
COURSE OUTCOME

- The zoology curriculum provides a comprehensive study of animal life, with emphasis on non-chordates, chordates, evolutionary biology, and ecological dynamics.
- It opens with Non-Chordata I and II, which discuss the roles of non-chordate scavengers and their development. Ecology studies environmental interrelationships, whereas Cell Biology investigates cell structure, organelles, and functions. Chordata are studied through comparative anatomy to learn about their genesis, adaptability, and evolutionary value.
- Courses such as Physiology of Life Controlling and Sustaining Systems educate about the operation of regulatory body systems, whereas Biochemistry and Microbiology discuss biomolecules and their functions in biology, as well as food safety and microbial applications. Comparative Anatomy of Vertebrates sheds light on vertebrate structural commonalities, boosting evolutionary knowledge.

- Advanced courses include Biochemistry of Metabolic Processes (metabolic pathways), Molecular Biology (DNA functions), and Genetics (genetic inheritance and experimental methodologies). Fertilisation and embryogenesis are taught in developmental biology, but the beginnings of life and adaptive evolution are studied in evolutionary biology.

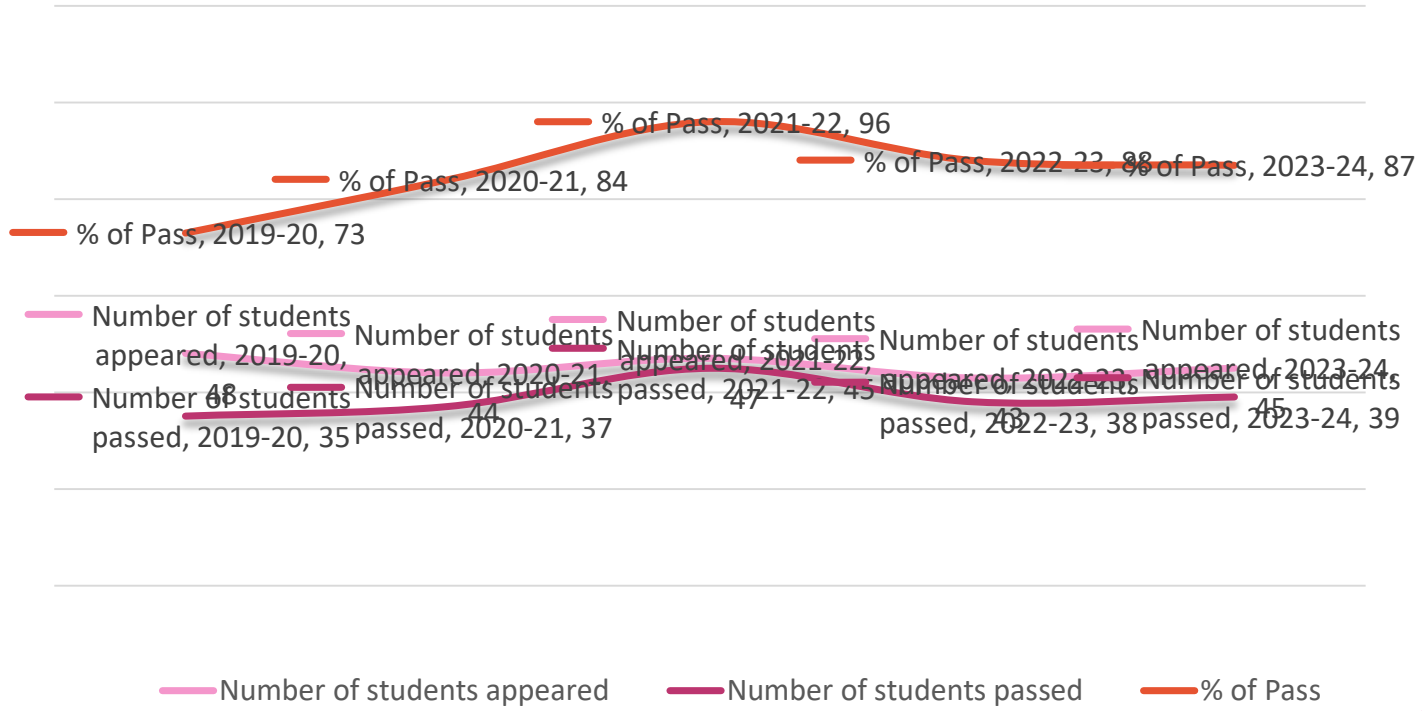
ADMISSION REPORT:

YEAR	SANCTIONED STRENGTH	1ST YEAR	3RD YEAR
		SEMESTER-I	SEMESTER-VI
2018-19	64	58	48
2019-20	64	54	44
2020-21	64	46	47
2021-22	64	49	43
2022-23	64	48	45
2023-24	64	47	34



RESULT ANALYSIS:

YEAR	NUMBER OF STUDENTS APPEARED	NUMBER OF STUDENTS PASSED OUT	% OF PASS
2019-20	48	35	73
2020-21	44	37	84
2021-22	47	45	96
2022-23	43	38	88
2023-24	45	39	87



DEPARTMENTAL ACTIVITIES:

- Best attendees are awarded as per the number of attendance.
- The lab has been upgraded with a system-based projector to enhance teaching and learning.
- Students deliver seminar talks using PowerPoint presentations from their syllabus.
- Secret voting is conducted to select the best seminar presenter.
- Awards and certificates are given for 1st and 2nd prizes to encourage participation.
- An “Annual Day” is celebrated, featuring a bulletin of final year presentations and tokens of appreciation for graduating students.
- A “Welcome Day” is held annually to welcome new students.
- The department observes “Anti-Ragging Day” through the “Yuba Sanskara Programme.”
- Students visited NISER, Bhubaneswar, and CPS Mahuda for practical research experiences during study tours.

ACHIEVEMENTS:

BATCH 2004-07

1. Asha Kiran Panda - Lecturer, Mahamayee Mahila Mahavidyalaya.

BATCH 2011-14

1. Nibedita Samal (Pass) – Clerk, State Bank of India.

BATCH 2013-16

1. Prabhat Laxmi Dash – Assistant Consultant- Tata Consultancy Services.
2. P. Roja - Senior Associate Data Manager, Pfizer.
3. Snehal Bholo - Associate Scientist, PLOBS.

BATCH 2014-17

1. Subhashree Jena – Phd. Awardee, “Gut Micro Flora in Telatrygon Zugei along south east coast of India”.

BATCH 2015-18

1. Subhashree Tripathy - Lecturer, Mahamayee Mahila Mahavidyalaya. National Adventure Camp, Shimla & National Student Parliament, Pune
2. Sandhya Mishra – Forest Guard, Odisha Forest Department.
3. Manisha Nayak – Senior HR Executive, Shand Group of Industries. National Adventure Camp, Shimla.
4. Arpita Sahu – National Adventure Camp, Shimla & National Student Parliament, Pune
5. Sruti Sriya Samantaray – National Adventure Camp, Shimla.
6. Aishwarya Nanda – National Integration Camp, Bhopal.
7. Mirabai Panda – Aaryaan Gurukul, Berhampur.

BATCH 2016-19

1. Itishree Pradhan (2016-19)- Cashier, Union Bank.
2. Sanjana Dash – Lecturer, Karunashanti Residential College.

BATCH 2017-20

1. Archana Kumari Panda (20– Junior Officer, Utkal Grameen Bank.
2. Amita Kumari Panda(20- Clerk, Bank of Maharashtra.
3. Anjani Sahu – Lecturer, K.M.Science College

BATCH 2018-21

1. Sagarika Sethi (2018-21)- Associate Tech Software Engineer, Mindfire Digital LLP.
2. Sunita Raulo (2018-21)- QA Engineer, FluidLive Solutions Pvt. Ltd.
3. Alisha Das – Branch Post Master – Indian Post.

BATCH 2020-23

1. Monalisha Nahak – Constable- Odisha Police
2. Gayatri Mondal – Stood Rank 7 in Berhampur University during her 6^{th} Semester.

STUDENT PROGRESSION:

Batch 2021

1. Pranati Priyadarshnee-- MSc MICROBIOLOGY, college of pharmaceutical science Mahuda. Dissertation in institute of Life science bhubaneswar.
2. Sagarika Sethi-- working as Associate software Engineer at Mind fire solution, Bhubaneswar
3. Charulata Pradhan-- MSc MICROBIOLOGY college of pharmaceutical science Mahuda

Batch 2022

1. Priyanka Padhy -- MSc BIOTECHNOLOGY , College of Pharmaceutical Science, Mahuda
2. Priyanka priyadarshini Behera-- MSc ZOOLOGY, Berhampur University
3. Rupali Sahu-- MSc ZOOLOGY, Gopalpur Degree College, berhampur.
4. Priya Kumari Maharana-- MSc Medical Laboratory Technician (MLT), Centurian University of Technology and Management, Bhubaneswar.
5. Damini Das -- MSc BIOTECHNOLOGY, College of Pharmaceutical Science, Mahuda
6. Manasi Patnaik-- MSc BIOTECHNOLOGY, Gayatri Institute of Science and Technology, Berhampur
7. Shibani Padhi-- MSc Medical Laboratory Technician (MLT), Centurian University of Technology and Management, Bhubaneswar.
8. Manaspita Patra-- L.LB, Lingaraj Law College, Berhampur

9. Rupali Behera-- MSc MARINE BIOLOGY, Berhampur University.
10. Usha Rani Panda-- MSc BIOTECHNOLOGY, College of Pharmaceutical Science, Mahuda.
11. Chinmayee Das -- MCA , Roland Institute of Technology, Berhampur.
12. Deepali Priyadarsani-- MSc ZOOLOGY, C V Raman Global University.
13. Tanushree Padhy-- MSW , Berhampur University.
14. Subhasri Sahu-- MBA , Roland Institute of Technology, Berhampur.

Batch 2023

1. Gayatri mandal -- GOVT.B.ED ,Dibakar Patnaik Institute of Advanced Study in Education, Berhampur.
2. Jotirmayee Nayak-- MBA , OUTR, Bhubaneswar.
3. Ankita priyadarshini-- MSc ZOOLOGY, Binayak Acharya College, Berhampur.
4. y.chiki Rao -- MCA , Nist University, Berhampur
5. Smruti Sudha sahu -- MSc MICROBIOLOGY , Sashi Bhushan Ratha Govt. Autonomous Women's College, Berhampur.
6. Subhashree Nayak-- MCA, GIET University, Gunpur
7. Ritupriya Mishra-- MSc MICROBIOLOGY, Sashi Bhushan Ratha Govt. Autonomous Women's College, Berhampur.
8. Tapaswini Gantayat -- MSc ZOOLOGY Binayak Acharya College, Berhampur
9. Gayatri Biswal-- MSc APPLIED NUTRITION, ICMR NIN Hyderabad.
10. Tejaswini choudhary-- MSc MICROBIOLOGY , Sashi Bhushan Ratha Govt. Autonomous Women's College, Berhampur.
11. Pallavi Mudra-- POST GRADUATE IN AGRICULTURE, IVRI Bareilly.

12. A Aishwarya-- Msc BIOTECHNOLOGY, Khalikote Unitary University, Berhampur.
13. Pratibha Sethi-- L.LB, Lingaraj Law College, Berhampur.
14. Pragati Panda -- MSc APPLIED CLINICAL MICROBIOLOGY, Centurian University, Bhubaneswar.
15. Gelvarsa Sahu-- B.ED , Acharya Ngranga College of Education, Andhra Pradesh.
16. Bhagyashree Patro-- MCA , Academy of Technocrats, Berhampur.
17. Mahima Patra -- MSc ZOOLOGY , SKCG Autonomous College , Parlakhemundi.
18. Arpita Badseth-- MSc ZOOLOGY, Govt. Science College, Chatrapur.

Batch 2024

1. Swayam Prakasini Behera– MSc. Zoology, Govt. Science College, Chatrapur.
2. Pratusha Priyadarshini Panigrahi– MSc. Zoology, Khalikote Unitary University, Berhampur.
3. Asaspi Dalai– MBA in Gandhi Academy of Technology and Egineering.
4. Monalisa Dakua– MSc Zoology, Berhampur University.
5. Ritika Patro– MBA NIST University, Berhampur.
6. Rojalin Pattnayak– MSc. Biotechnology, Khalikote Unitary University, Berhampur.
7. Ritika Behera– MSc. Zoology, Sashi Bhushan Ratha Women’s College, Berhampur.

NEP 2020 IMPLEMENTATION

The implementation of the National Education Policy (NEP) 2020 for zoology and life sciences introduces significant improvements over the previous BSc Zoology syllabus:

1. **Interdisciplinary Approach**: Integrates zoology with fields like Botany, Chemistry, Physics and Bioinformatics, promoting cross-disciplinary research.
2. **Flexible Learning Paths**: Offers elective courses, allowing students to tailor their degrees to individual interests.
3. **Practical and Research Orientation**: Encourages internships and projects, enhancing practical skills for real-world applications.
4. **Holistic Learning**: Focuses on soft skills, critical thinking, and communication, producing well-rounded graduates.
5. **Skill Development and Employability**: Introduces skill-based modules, equipping students with employable skills for various sectors.
6. **Focus on Environmental and Sustainability Issues**: Aligns curricula with contemporary challenges like climate change and biodiversity conservation.
7. **Multilingual and Inclusive Education**: Encourages teaching in regional languages, enhancing accessibility for diverse linguistic backgrounds.

FUTURE PLAN OF THE DEPARTMENT

Collaborates/Partners: Work with universities, other research institutes, non-governmental organizations and public entities to share resources such as labs equipment.

Field-based: Prioritizing work where there is a need for fieldwork, biodiversity surveys or minimal lab infrastructure. Partner with local citizens in conservation projects.

Online Learning and Digital Resources: Avail use of online platforms for Virtual labs, Zoological databases or exploitations using digital microscopy in addition to practical learning.

Skills Training: Focus squarely on building capacity in the areas of taxonomy, conservation biology, wildlife management and environmental monitoring; skills that are low infrastructure but high demand.

Student-driven Projects: Support small scale, student-led projects that look at wildlife in their immediate vicinity, sustainable practices or biodiversity monitoring using basic equipment.

Interdepartmental seminars to be conducted at national level.

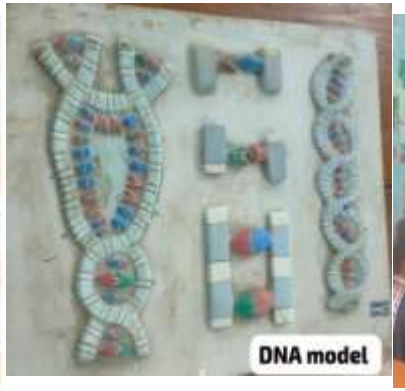
PHOTO GALLERY




Department and its library



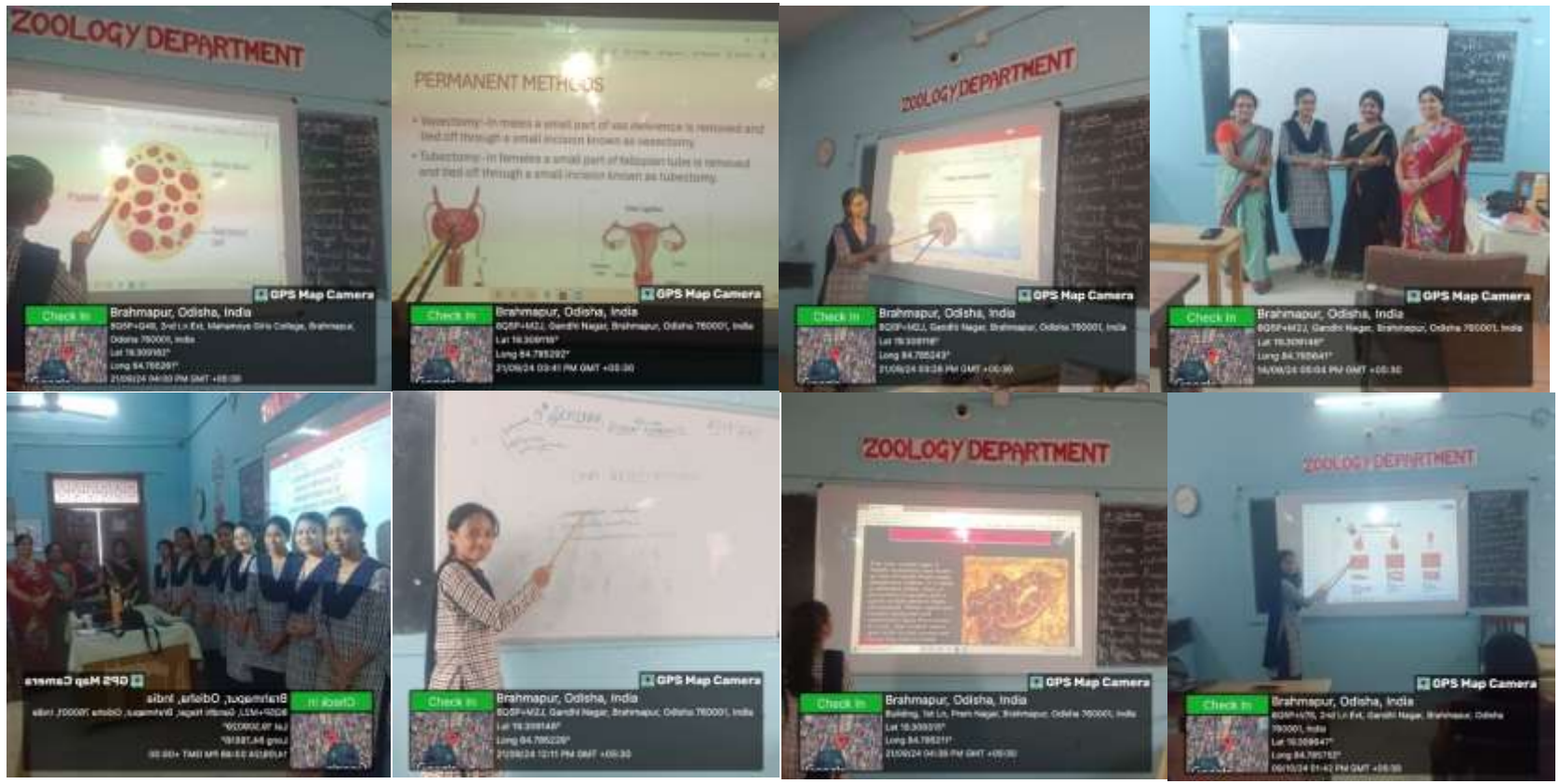




Practical Sessions

Extra curricular activities

Study Tours



Departmental Seminar

THANK YOU