



**MODERN COLLEGE OF ARTS,  
SCIENCE AND COMMERCE  
GANESHKHIND, PUNE-16  
(AUTONOMOUS)**

**Three Year B.Sc. Degree Program  
in ZOOLOGY  
(Faculty of Science)**

**To be implemented from Academic Year  
2024-2025**

**BOARD OF STUDIES IN ZOOLOGY**

**Progressive Education Society's  
MODERN COLLEGE OF ARTS, SCIENCE AND COMMERCE, GANESHKHIND,  
PUNE- 16  
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**Preamble:**

Zoology is one of the major subjects of Basic Sciences and deals with all aspects of animal biology. It includes an interesting range of highly diverse topics. A zoology student needs to gain understanding of many areas of the subject to keep pace with advancements in Life Sciences.

This under-graduate degree program has been designed by the Board of Studies in Zoology of Savitribai Phule Pune University with a substantial component of what is needed from a zoologist as a skilled career and what zoologists need to pursue for post-graduation and further academic studies. It follows the guidelines laid down by the University Grants Commission, New Delhi. This newly designed curriculum is a perfect blend of the classical aspects in Zoology with the advanced and more specialized areas.

This degree offers Discipline Specific Core Courses [CC] in Animal Systematics, Animal Ecology, Animal Cell biology, Applied Zoology, Pest Management, Histology, Biological Chemistry, Genetics, Developmental Biology, Parasitology, Medical & Forensic Zoology, Animal Physiology, Molecular Biology, Entomology, Techniques in Biology and Evolutionary Biology.

In addition to the Core Courses, Ability Enhancement Compulsory Courses [AECC] have been added in the second year i.e. Semester III and Semester IV of the undergraduate course. In the third year i.e. Semester V and Semester VI, Discipline specific Elective Courses [DSEC] and Skill Enhancement Courses [SEC] have been offered. The students, therefore, have an opportunity to take courses in Environment Awareness, Language & communication, English / Marathi, Aquarium Management, Poultry Management and Environmental Impact Assessment. In Semester VI the students also have a course dedicated to Project work.

The syllabus has been framed in such a way that the student gains each year, a broader perspective of the subject as he progresses towards completion of the degree program. Field visits, Educational visits and the Project work have been included for the student to experience the applications of the theory learnt in the classroom.

After completion of the program, it is expected that students will understand and appreciate: animal diversity, few applications of Zoology, the structure, functions and life processes at cellular, tissue, organ and system level, significance of evolution, and basic concepts of human health. The students would also gain an insight into laboratory and field work through the practical course, field work and the project.

The new course will be effective from the academic year 2024- 2025 and will follow the Choice Based Credit System in a Semester mode. It has been primed keeping in view the distinctive requirements of B. Sc. Zoology students. The contents have been drawn-up to accommodate the widening prospects of the discipline of Life Sciences. They reflect the changing pre requisites of the students. This graduate program has been introduced with 144 credits for the subject group

while 08 credits to earn from any of the 08 groups offering a range of curricular, co-curricular and extracurricular activities. This pattern has been specially aimed towards the overall development of the students.

The calculation of credits and CGPA will be as per the guidelines of the University. The B. Sc. Zoology program provides an appropriate blend of classical and applied aspects of the subject. This newly designed curriculum will allow students to acquire the skill in handling scientific instruments planning and performing in the laboratory and exercising critical judgement, independent thinking and problem solving skills. The Syllabus has been revised with the following aims -

- To foster curiosity in the students for Zoology,
- To create awareness amongst students for the basic and applied areas of Zoology,
- To orient students about the importance of abiotic and biotic factors of environment and their conservation,
- To provide an insight to the aspects of animal diversity,
- To inculcate good laboratory practices in students and to train them about proper handling of lab instruments.

**Course Structure with Credit Distribution of the Third year Zoology Syllabus**

<b>Semester</b>	<b>Course</b>	<b>Course code</b>	<b>Name of the Course</b>	<b>Credits</b>
<b>V</b>	DSEC	24-ZO -351	Applied Entomology	2 Credits (30 L)
	DSEC	24-ZO-352	Histology and Histopathology	2 Credits (30 L)
	DSEC	24 -ZO -353	Biological Chemistry	2 Credits (30 L)
	DSEC	24 -ZO -354	Genetics	2 Credits (30 L)
	DSEC	24-ZO -355	Developmental Biology	2 Credits (30 L)
	DSEC	24 -ZO-356	Medical Parasitology	2 Credits (30 L)
	DSEC	24-ZO-357 (Based on 24-ZO -351+24-ZO-352)	Zoology Practical –I	2 Credits
	DSEC	24-ZO-358 (Based on 24 -ZO -353+24 -ZO -354)	Zoology Practical –II	2 Credits
	DSEC	24-ZO-359 (Based on 24-ZO -355+24 -ZO-356)	Zoology Practical –III	2 Credits
	SEC	24-ZO-3510	Fishery Management	2 Credits (30 L)
SEC	24-ZO-3511	Veterinary Management	2 Credits (30 L)	
<b>Semester VI</b>	DSEC	24-ZO-361	Forensic Zoology	2 Credits (30 L)
	DSEC	24-ZO-362	Animal Physiology	2 Credits (30 L)
	DSEC	24-ZO-363	Molecular Biology	2 Credits (30 L)
	DSEC	24-ZO-364	Pest Management	2 Credits (30 L)
	DSEC	24-ZO-365	Tools and techniques in Biology	2 Credits (30 L)
	DSEC	24-ZO-366	Evolutionary Biology	2 Credits (30 L)

DSEC	<b>24-ZO-367</b> (Based on <b>24-ZO-361+24-ZO-362</b> )	Zoology Practical –I	2 Credits
DSEC	<b>24-ZO-368</b> (Based on <b>24-ZO-363+24-ZO-364</b> )	Zoology Practical –II	2 Credits
DSEC	<b>24-ZO-369</b> (Based on <b>24-ZO-365+24-ZO-366</b> )	Zoology Practical –III	2 Credits
SEC	<b>24-ZO-3610</b>	Biodiversity Assessment	2 Credits (30 L)
SEC	<b>24-ZO-3611</b>	Project/Internship/Hands on Training or Workshop	2 Credits (Minimum 1 week duration)

**CC**=Core Courses,  
**AECC** =Ability Enhancement Compulsory Courses,  
**DSEC**= Discipline specific Elective Courses  
**SEC**= Skill Enhancement Courses