

**K.N.Bhise Arts, Commerce and Vinayakarao Patil Science College,
Vidyanagar, Bhosare, Kurduwadi**

Department of Zoology

**Punyashlok Ahilyadevi Holkar Solapur University, Solapur Faculty of
Science Choice Based Credit System (CBCS) (W.e.f. June 2019)**

• Title of the Course: B.Sc. Part-I • Subject: Zoology

• Introduction: This course provides a broad overview of Zoology and to produces expert hands that would have sufficient knowledge and expertise to solve the urgent problems of the region by using Zoology. The course structure is basic science centric where students learn core science and are taught necessary fundamental subject for that purpose.

• **Objectives of the course:** The objectives of B. Sc. Zoology course are:

a. To provide an intensive and in depth learning to the students in field of Zoology.

b. Beyond simulating, learning, understanding the techniques, the course also addresses the underlying recurring problems of disciplines in today scientific and changing world.

c. To develop awareness & knowledge of different organization requirement and subject knowledge through varied branches and research methodology in students.

d. To train the students to take up wide variety of roles like researchers, scientists, consultants, entrepreneurs, academicians, industry leaders and policy.

Course outcome and Advantages :

Zoology has tremendous job potential.

a) The successful students will be able to establish research organizations with the help of agriculture, environment protection and also their own industry for transgenic animals, clinical pathology, genetic counseling, human karyotyping etc.

b) Scientific Research Organizations.

c) Universities in India & abroad.

d) • Eligibility and Admission: A Candidate passing 10+2 with biology MLT , dairy science , Fisheries, Agricultural science as one of the subject and passed from state syllabus / CBSE / equivalent with minimum passing percentage of as per the directives of the higher education and Solapur university, Solapur.

- Duration: The duration for this program is of 3 years with semester pattern (06 Semesters)

- Medium of Instruction: English • Syllabus Structure: • The University follows semester system.

- An academic year shall consist of two semesters.

- Each B.Sc. course shall consist of three years i.e. six semesters.

- B.Sc. Part-I Zoology shall consist of two semesters: Semester I and Semester II. In semester I, there will be two core papers is having paper I and paper II of 100 marks. Similarly in Semester II there will be two core papers is having paper I and paper II of 100 marks. English will be as Ability Enhancement Course (AECC) in both Semester I and II. English paper carries 100 marks in each semester. The scheme of evaluation of performance of candidates shall be based on University assessment as well as College internal assessment as given below. For B.Sc. Part-I Zoology sem I & II the internal assessment will be based on Internal tests, Home assignment,

Tutorials, Seminars, Group discussion, Brain storming sessions etc. as given below. Practical course examination is of 100 marks shall be conducted at the end of semester II. The practical examination of 100 marks shall also consist of 80 marks for University practical assessment and 20 marks for college internal assessment.

- Scheme of Evaluation As per the norms of the grading system of evaluation, out of 100 marks, the candidate has to appear for college internal assessment of 20 marks and external evaluation (University assessment) of 20 marks.

Choice Based Credit System: With the view to ensure worldwide recognition, acceptability, horizontal as well as vertical mobility for students completing undergraduate degree, Solapur University has implemented Choice Based Credit System (CBCS) at Undergraduate level. The CBCS provides an opportunity for the students to choose courses from the prescribed courses comprising core, elective/minor or skill based courses. The courses can be evaluated following the grading system, which is considered to be better than the conventional marks system. Therefore, it is necessary to introduce uniform grading system in the entire higher education in India. This will benefit the students to move across institutions within India to begin with and across countries. The uniform grading system will also enable potential employers in assessing the performance of the candidates. In order to bring uniformity in evaluation system and computation of the Cumulative Grade Point Average (CGPA) based on student's performance in examinations.

- Outline of Choice Based Credit System:

1. Core Course: A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core course.
2. Elective Course: Generally a course which can be chosen from a pool of courses and which may be very specific or specialized or advanced or supportive to the discipline/ subject of study or which provides an extended scope or which enables an exposure to some other discipline/subject/domain or nurtures the candidate's proficiency/skill is called an Elective Course. Discipline Specific Elective (DSE) Course: Elective courses may be offered by the main discipline/subject of study is referred to as Discipline Specific Elective.
3. Ability Enhancement Courses (AEC): The Ability Enhancement (AE) Courses may be of two kinds: Ability Enhancement Compulsory Courses (AECC) and Skill Enhancement Courses (SEC). "AECC" courses are the courses based upon the content that leads to Knowledge enhancement; (i) Environmental Science and (ii) English/MIL Communication. These are

mandatory for all disciplines. SEC courses are value-based and/or skill-based and are aimed at providing hands-on-training, competencies, skills, etc.

**K.N.Bhise Arts, Commerce and Vinayakarao Patil Science College,
Vidyanagar, Bhosare, Kurduwadi**

Department of Zoology

Sr.No	Program	Program objectives	Program specific outcomes
1	B.Sc. Zoology	PO 1. Scientific Thinking: To develop different perspectives about various ideas to reach to the ultimate decisions.	Been able to think creatively (divergently and convergent) to propose novel ideas in explaining facts and figures or providing new solution to the problems.
2		PO2. Skill in handling of scientific instruments	The skills of observations and drawing logical inferences from the scientific experiments.
3		PO3 To find solutions and new ideas for the sustainable developments.	Realized how developments in any science subject helps in the development of other science subjects and vice-versa and how interdisciplinary approach helps in providing better solutions and new ideas for the sustainable developments.
4		PO4.Developed various communication skills such as scientific reading, listening, speaking, etc., which we will help in expressing ideas and views clearly and effectively.	Develop the skill of scientific communication.
		PO5. Depth learning in the field of subject Zoology.	To train the students to take up wide variety of roles like researchers, scientists, consultants, entrepreneurs, academicians, and industrialist.

**K.N.Bhise Arts, Commerce and Vinayakarao Patil Science College,
Vidyanagar, Bhosare, Kurduwadi**

Department of Zoology

Course Outcomes

Sr.No	Course	Course outcomes
1	Paper I -Animal Diversity I	<ol style="list-style-type: none"> 1. Understand the evolution, history of phylum. 2. Understand about the Non Chordate animals. 3. To study the external as well as internal characters of non chordates. 4. To study the distinguishing characters of non chordates. 5. Understand the economical importance of Molluscs.
2	Paper II- Cell biology and Genetics	<ol style="list-style-type: none"> 1. Understand the Scope of cell biology, because cell is the basic unit of life. 2. Understand the Main distinguishing characters between plant cell and animal cell. 3. To study and understand the whole cell organelles with their structure and function. 4. Understand the cell cycle and know the importance of various cells in body of organisms. 5. Understand mendelian genetics, some aspects of Human Genetics and theories of sex determination.
3	Paper III – Animal Diversity II	<ol style="list-style-type: none"> 1. Understand the silent features of protochordates. 2. Understand general characters of fishes, fish scales, fish respiration 3. To understand the classification and general characters of fishes and amphibians. <p>Paper IV- Ecology, Ethology, Evolution and Applied Zoology</p> <ol style="list-style-type: none"> 1. To understand the basic concepts of biotic factors and abiotic factors. 2. To understand the concept of ecosystems and ecological succession. 3. To understand the behavior of animals in different part of life cycle. 4. To know the concept of Evolution and origin of life 5. To understand applied concepts of Apiculture, sericulture, vermin culture, goat farming etc.

4	Paper IV- Ecology, Ethology, Evolution and Applied Zoology	<ol style="list-style-type: none"> 1.To understand the basic concepts of biotic factors and abiotic factors. 2.To understand the concept of ecosystems and ecological succession. 3.To understand the behavior of animals in different part of life cycle. 4.To know the concept of Evolution and origin of life 5. To understand applied concepts of Apiculture, sericulture, vermin culture, goat farming etc.
5	Paper V- Animal Diversity III	<ol style="list-style-type: none"> 1.To understand the morphology, habitats and physiological systems of cockroach and Pila 2.Tostudy disease spreading insects Mosquito species 3. To study the offence and defense mechanism in animals. 4. Classification and characters of non chordates and hemichordates.
6	Paper VI- Cell Science, Genetics, Biological chemistry and Economic zoology	<ol style="list-style-type: none"> 1. To understand cell science Mitosis and Meiosis 2. To understand the genetics in some human disorders 3. To study the structure and function of biomolecules. 4. To understand the economic zoology with reference to fishery, apiculture, dairy , etc.
7	Paper VII – Animal Diversity IV	<ol style="list-style-type: none"> 1. To understand the classification and characters of AVES, REPTILES, and Mammals. 2. To understand the classification and physiological systems of Rat as type study . 3. To understand the poisonous and non poisonous snakes, snake venom and its medicinal uses 4. To understand evolutionary studies
8	Paper VII – Histology and Physiology	<ol style="list-style-type: none"> 1. To understand the various human tissue ,structure and their functions. 2. To understand the effect of hormones 3. To understand the various contraceptives 4. To understand the body defense mechanism