2024-25

Rayat Shikshan Sanstha's

RAJARSHI CHHATRAPATI SHAHU COLLEGE, KOLHAPUR.

DEPARTMENT OF ZOOLOGY

PROGRAMME SPECIFIC OUTCOME

After successful completion of UG syllabus of Zoology student should able to:

- **PO1:** The students will learn about the basic concepts of Zoology and a platform for the entry of students in post-graduation studies, competitive examinations, paramedical fields, and agricultural business will be prepared.
- **PO2:** Students will understand the concepts in zoology and be able to understand, classify, describe, and discuss different aspects of zoology like animal Phyla, conservation of animals, animal physiology, etc.
- **PO3:** Students can apply their knowledge to solve problems related to genetics, and ecology and become competent to apply their knowledge of physiology, ethology, and entomology in their day-to-day life.
- **PO4:** The students acquire various practical skills and dissection skills.
- **PO5:** The students will be able to diagnose problems related to environmental issues, health and hygiene, agriculture and pest management, conservation of natural resources, etc., and try to solve them with scientific aptitude.
- **PO6:** The students will apply their knowledge of zoology for the development of entrepreneurship and also practice it in their day-to-day lives.

COURSE OUTCOMES OF B.Sc. ZOOLOGY

COURSE OUTCOMES: ANIMAL DIVERSITY After completion of this course, Students will be able to:	
CO1	Understand the concept and importance of biodiversity
CO2	Enable the students to identify the similarities and differences among the animals in different Phyla and classes
CO3	Develop sensitivity for the conservation of biodiversity in their day-to-day life
CO4	Analyze complex interactions among the various animals of different phyla, their distribution and their relationship with the environment
CO5	Equip the students with the skills of dissection.
COURSE OUTCOMES: CELL BIOLOGY Students will be able to:	
CO6	Understand the general organization of cell organelles and their functions
CO7	Apply their knowledge to study the functioning of a cell and cell divisions and its regulation
CO8	Analyze the role of cell organelles and cell cycle checkpoints with examples of

	anemia, diabetic wounds, and cancer.
CO9	Equip the students with skills like handling the microscope, micrometry, staining techniques, etc
COURSE OUTCOMES: GENETICS Students will be able to:	
CO10	Understand heredity and variation
CO11	Apply their knowledge to draw the genetic crosses based on patterns of heredity
CO12	Culture the Drosophila and handling skills among the students
CO13	Enable the students to develop a. a gene map using data of crossing over and linkage study, draw, and analyze pedigree, analyze karyotypes.
COURSE OUTCOMES: ECOLOGY, ETHOLOGY,EVOLUTION & ENTOMOLOGY Students will be able to:	
CO14	Understand the basic concepts
CO15	Enable the students to identify the amazing features of the insect world
CO16	Train students to arrange the animals on a geological time scale.
CO17	Mold the student to apply their knowledge to construct food chains, food webs, and ecological pyramids.
COURSE OUTCOMES: ANIMAL DIVERSITY II Students will be able to:	
CO18	Recognize the diversity from proto chordates to Mammals.
CO19	Explain general characters and different systems of Amphibians with respect to Frog
CO20	Explain the salient features and different aspects of animals with respect to geographical distribution and economic importance.
CO21	Analyze complex interactions among the various animals of different classes, their distribution and their relationship with the environment
COURSE OUTCOMES: BIOCHEMISTRY The Students will be able to:	
CO22	Interpret the basic metabolism of carbohydrates, proteins, lipids in the diet
CO23	Describe Interactions and interdependence of physiological and biochemical processes
CO24	Explain biochemistry to health
CO25	Demonstrate the role of enzymes, enzyme reaction and influence of temperature,pH on enzyme action.
COURSE OUTCOMES: REPRODUCTIVE BIOLOGY Students will be able to:	
CO26	Explain the biological processes of reproduction
CO27	Explore how reproductive biology impacts other aspects of health
CO28	Recognize modern reproductive technology
CO29	Describe about reproductive health

COURSE OUTCOMES: APPLIED ZOOLOGY-I Students will be able to:	
CO30	Explain the basic concepts regarding host and parasites
CO31	Acquaint the knowledge about various diseases caused by insect pests and their control measures
CO32	Earn from entrepreneurship opportunities
CO33	Describe about various bacterial diseases
COURSE OUTCOMES: COMPARATIVE ANATOMY OF VERTEBRATES Students will be able to:	
CO34	Describe functional anatomy of vertebrates from fishes to mammals
CO35	Demonstrate the evolutionary history and relationships among different groups of vertebrates
CO36	Describe various systems of different classes of vertebrates
CO37	Demonstrate anatomical structures of vertebrates
COURSE OUTCOMES: MOLECULAR CELL BIOLOGY & BIOTECHNOLOGY Students will be able to:	
CO38	Acquaint about regulation of genes
CO39	Describe the gene manipulation techniques such as transformation, PCR etc
CO40	Recognize the importance of molecular techniques in health sector
CO41	Demonstrate process of DNA replication, Transcription, Traslation & gene regulation
COURSE OUTCOMES: BIOTECHNIQUES AND BIOSTATISTICS Students will be able to:	
CO42	Describe about animal cell culture techniques
CO43	Describe about genetically modified organisms
CO44	Recognize importance of stem cells and their use in medical field
CO45	Demonstrate biological quantitative data using statistical operations
COURSE OUTCOMES: AQUATIC BIOLOGY Students will be able to:	
CO46	Describe the discipline of aquatic biology & it's applications
CO47	Demonstrate different fresh water ecosystem, different coastal zones, Coral reefs
CO48	Interpret the types & secretions of endocrine glands and their functions
CO49	Describe various hormones and their roles
COURSE OUTCOMES: DEVELOPMENTAL BIOLOGY Students will be able to:	
CO50	Describe different types of eggs, cleavage, blastulae in different animals
CO51	Develop skills related to developmental biology
CO52	Interrelate different animals with their developmental process
CO53	Recognize late embryonic development

COURSE OUTCOMES: IMMUNOLOGY Students will be able to:	
CO54	Explain the basics about immunity, working of immune system
CO55	Demonstrate working of defence mechanism against Antigen
CO56	Acquaint about antigens, different types of antibodies & therapeuticapplications of antibodies
CO57	Demonstrate recent advances in immunology
COURSE OUTCOMES: APPLIED ZOOLOGY Students will be able to:	
CO58	Demonstrate the basic concepts regarding Prawn culture, Pearl culture,Apiculture
CO59	Equip with modern techniques in animal husbandry and knowledge aboutvarious byproducts
CO60	Explain the basic concepts regarding Animal husbandry and Goat farming
CO61	Describe genetic improvements in aquaculture
COURSE OUTCOMES: ANIMAL PHYSIOLOGY Students will be able to:	
CO62	Gain fundamental knowledge of animal physiology
CO63	Explain the mechanisms that work to keep the animal body alive and functioning
CO64	Compare Interactions and interdependence of physiological and biochemical processes
CO65	Explain the basic concepts of digestion, respiration, excretion, the functioning of nerves and muscles, cardiovascular system, endocrine system and reproductive system.

RAJARSHI CHHATRAPATI SHAHU COLLEGE ★ KOLHAPUR

Head,
Dept. of Zoology

Prof.(Dr.)P. B. Piste
In Charge(POs,PSOs,COs)

Principal
R. C. Shahu College, Kolhapur

I/C PRINCIPAL
R. C. SHAHU COLLEGE