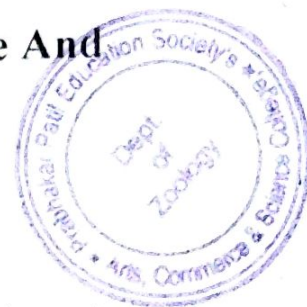


**Prabhakar Patil Education Society's Arts Commerce And  
Science College Veshvi- Alibag**



**Department of Zoology**

➤ **Zoology Programme Outcomes**

1. PO1 - Students gain knowledge and skill in the fundamentals of animal sciences, understands the complex interactions among various living organisms
2. PO2 – Analyse complex interactions among the various animals of different phyla, their distribution and their relationship with the environment
3. PO3 – Apply the knowledge of internal structure of cell, its functions in control of various metabolic functions of organisms
4. PO4 – Understands the complex evolutionary processes and behaviour of animals
5. PO5 – Correlates the physiological processes of animals and relationship of organ systems
6. PO6 – Understanding of environmental conservation processes and its importance, pollution control and biodiversity and protection of endangered species
7. PO7 – Gain knowledge of Agro based Small Scale industries like sericulture, fish farming, butterfly farming and vermicomposting preparation.
8. PO8 – Understands about various concepts of genetics and its importance in human health
9. PO9 - Apply ethical principles and commit to professional ethics and responsibilities in delivering his duties
10. PO10 – Apply the knowledge and understanding of Zoology to one's own life and work
11. PO11 – Develops empathy and love towards the animals

➤ **Program Specific Outcomes**

1. PSO1. Understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, ecology and applied Zoology
2. PSO2. Analyse the relationships among animals, plants and microbes
3. PSO3. Perform procedures as per laboratory standards in the areas of Taxonomy, Physiology, Ecology, Wonders of animal world's, Genetics, Footsteps to follow, Population ecology Clinical science, tools and techniques of Zoology, Toxicology, Entomology, Nematology Sericulture, Biochemistry, Fish biology, Animal biotechnology, Instrumentation
4. PSO4. Understand the applications of biological sciences in Apiculture, Aquaculture, Agriculture and Medicine
5. PSO5. Gains knowledge about research methodologies, effective communication and skills of problem solving methods 6. PSO6. Contributes the knowledge for Nation building

**6. Course Outcomes**

**F.Y.Bsc – Zoology Semester I**

**Course I: Wonders of Animal world (USZO101)**

## **Unit 1 Wonders of Animal World**

- CO1 To describe uniqueness of mimicry, Bird migration and Brood parasitism.
- CO2 To explain Breeding and Parental and Adaptation of desert animals.
- CO3 To describe Echolocation, pearl formation, Bioluminescence, Regeneration and Coral

## **Unit 2 Biodiversity and its Conservation**

- CO1 To explain significance of biodiversity and conservation.
- CO2 To interpret and discuss role & importance of biodiversity in daily life.
- CO3 To evaluate, discuss biodiversity conservation and management at local and international level.

## **Unit 3 Footsteps to follow**

- CO1 To summarise the work of scientists /philosophers/ entrepreneurs in biology.
- CO2 To delineate and sketch biographies of Dr. Hargobind Khorana, Dr. Salim Ali
- CO3 To critique and analyse White revolution, Water conservation, Biocon, Gadre fisheries, Anandvan.

## **Course II: Instrumentation and Biotechnology (USZO102)**

### **Unit 1 Laboratory Safety, Units and Measurements**

- CO1 To recognize hazard symbols and risks in Laboratory
- CO2 To practice safety measures in Laboratory
- CO3 To calculate concentrations e.g., molarity, normality, percentage etc
- CO4 To convert SI system units, e.g.,  $\mu\text{g}$  to g
- CO5 To evaluate and compare sampling methods CO6 To calculate measures of central tendency (mean, median, mode)

### **Unit 2 Animal Biotechnology**

- CO1 To describe applications of BT in various fields
  - CO2 To draw flowcharts and describe some applications
  - CO3 To debate ethical issues in use of GM products
- Numerical Methods and Statistical Methods: Lerner will learn different types of Numerical methods and statistical methods to apply in different fields of Mathematics.

### **Unit 3 Instrumentation**

- CO1 To identify instruments used in Biology

- CO2 To draw diagrams for and explain principles of instruments
- CO3 To delineate applications of instruments

## **Zoology Semester II**

### **Course I: Biodiversity and Population Ecology (USZO201)**

#### **Unit 1 Population Ecology**

- CO1 To define and describe factors affecting population, e.g., density, natality, mortality etc
- CO2 To draw and describe Age structure and survivorship curves
- CO3 To interpret and explain growth curves
- CO4 To discuss mechanisms regulating growth CO5 To define and learn significance of life table CO6 To describe procedure for census

#### **Unit 2 Ecosystem**

- CO1 To describe components of ecosystem
- CO2 To explain effect of temperature on biota
- CO3 To draw and explain biogeochemical cycles
- CO4 To explain fresh water ecosystems
- CO5 To define terms lentic and lotic ecosystems
- CO6 To describe ecological pyramids
- CO7 To differentiate erect and inverted pyramids
- CO8 To explain animal interactions with examples
- CO9 To define and explain various types of food chains and food webs
- CO10 To differentiate food chains and food webs

#### **Unit 3 National Parks, Sanctuaries of India**

- CO1 To illustrate endangered, threatened and critically endangered animals
- CO2 To analyse and describe reasons for threat to wildlife
- CO3 To describe unique features (flora and fauna) of some national parks
- CO4 To summarise role of wildlife
- CO5 To describe Projects Tiger and Rhinoceros
- CO6 To describe ecotourism with reference to conservation
- CO7 To explain Biopiracy with reference to biological resources in India

### **Course II: NUTRITION, PUBLIC HEALTH AND HYGIENE** **(USZO202)**



## Unit 1 Nutrition and Health


- CO1 To define and describe balanced diet and essential nutrients of food.
- CO2 To differentiate and describe healthy and unhealthy eating habits and lifestyles.
- CO3 To interpret and calculate BMI.


## Unit 2 Public Health and Hygiene

- CO1 To question and discuss depleting water resource. To evaluate measurement of water footprint.
- CO2 To define and explain sanitation and Hygiene
- CO3 To describe WHO and its programs in India.
- CO4 To explain and interpret effects of radiation
- CO5 To describe and list methods to prevent addiction.

## Unit 3 Common Human Diseases and Disorders

- CO1 To discuss causes, symptoms and impact of stress related disorders.
- CO2 To identify describe relevant solutions for positive attitude.
- CO3 To describe cause, symptoms and precautions of infectious diseases.
- CO4 To differentiate Communicable and Non – communicable diseases.

  
Head of The Department  
Prabhakar Patil Education Society's  
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