Department of Zoology
School of Sciences
Bachelor of Sciences Programme: Zoology

Uttarakhand Open University
Teenpani Bypass, University Road, Behind T.P Nagar
Haldwani - 263139, Nainital
Uttarakhand
Programme Structure

B.Sc.I Year (Zoology)

Course 1: Non-Chordata
Course Code-(BSCZO101)

Objective:

1. To comprehend the systematic position, functional morphology, mode of life and biodiversity of invertebrates
2. To study their economic importance, affinities and adaptations.
3. To study the parasitic forms of various invertebrate groups and their effect on human and animals.
4. Understand the general features of animal life cycles and forms of reproduction.
5. Describe the general features used to classify animal groups such as type of symmetry, number of tissue layers, body cavities, segmentation and cephalization and distinctive larval forms.

Syllabus

UNIT SCHEDULE

Block I: Lower Non chordate

Unit 1: Phylum Protozoa
Unit 2: Metazoa
Unit 3: Phylum Porifera
Unit 4: Phylum Cœlenterate
Unit 5: Phylum Platyhelminthes
Unit 6: Phylum Nematelminthes
Unit 7: Phylum Annelida

Block II: Higher Non Chordata

Unit 8: Phylum Arthropoda
Unit 9: Phylum Mollusca
Unit 10: Phylum Echinodermata
Course 1: Non-Chordata (BSCZO101)

UNIT WISE CONTENTS (BSCZO101)

Block I: Lower Non Chordate

Unit 1: Phylum Protozoa
   General characters classification up to order. Study of Paramecium with particular reference to locomotion, nutrition, osmoregulation and reproduction.

Unit 2: Metazoa
   Germ layers, diploblastics and triploblastics organization.

Unit 3: Phylum Porifera
   General characters and Classification up to order level. Sycon with special reference to structure, reproduction and development. Canal systems and affinities.

Unit 4: Phylum Coelentrata
   General characters and Classification up to order level. Aurelia with special reference to structure, reproduction, development and polymorphism. A brief account of corals and coral reefs and their importance.

Unit 5: Phylum Platyhelminthes
   General characters and Classification up to order level. Study of Fasciola with reference to structure, reproduction and parasitic adaptations.

Unit 6: Phylum Nematelminthes
   General characters and Classification up to order level. Study of Ascaris with special reference to structure, reproduction and development.

Unit 7: Phylum Annelida
   General characters and Classification up to order level. Nereis with special reference to structure, reproduction and development. Metamerism and Parasitic adaptations in Hirundinaria.

Block II: Higher Non Chordata

Unit 8: Phylum Arthropoda
   General characters and Classification up to order level. Paleomon with special reference to structure, reproduction and development. Zoological importance of Peripatus. Types of mouth parts in insects. Social insects and their economic importance.

Unit 9: Phylum Mollusca
   General characters and Classification up to order level. Pila with special reference to structure, reproduction and development.
Unit 10: Phylum Echinodermata

General characters and classification up to order level. *Asterias* with special reference to structure, locomotion, mode of feeding and reproduction.

Suggested Readings: