

Achhruram Memorial College

JHALDA, PURULIA, WEST BENGAL, INDIA, PIN: 723 202

Affiliated to Sidho-Kanho-Birsha University, Purulia

Department of Zoology

Certificate Course on 'Curation Techniques of Insect Museum Specimens'

Date: 10/09/2024

Notice

We would like to inform you that the Department of **Zoology** at Achhruram Memorial College will be offering a Certificate Course as mentioned above. The course is scheduled to run from **15th September, 2024 to 15th December, 2024 (Total 30 hrs)**.

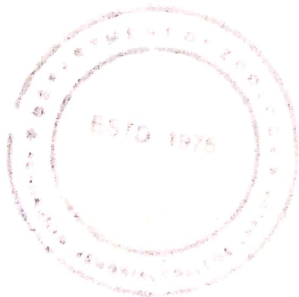
If you are interested, we kindly ask you to reach out to the relevant teacher of the department or the course coordinator for additional information regarding course duration, schedule, modules, and enrolment details.

Asijit Gangopadhyay
Course Coordinator

KNandan
HOD, Dept. of Zoology

[Signature]
10/09/24

Principal



HEAD
Dept. of Zoology
A.M. College, Jhalda, Purulia

PRINCIPAL
ACHHRURAM MEMORIAL COLLEGE
JHALDA, PURULIA
WEST BENGAL





Achhruram Memorial college

Jhalda, Purulia, West Bengal



Curation techniques of Insect museum specimens (30 hours)

Description: This course provides a comprehensive introduction to the fascinating world of insect identification and preservation techniques. After completing eight modules (26 hours lecture, 4 hours hands-on), students will gain the knowledge and skills necessary to classify insects to order, family, and potentially species level, and curate their own insect collection.

Learning Objectives: 1. Understand the principles of insect taxonomy and classification systems. 2. Identify key morphological features used for insect identification. 3. Utilize dichotomous keys and online resources for insect identification. 4. Describe proper insect collection methods in various habitats. 5. Apply different insect preservation techniques (pinning, point mounting, wet preservation). 6. Label insect specimens with accurate and detailed information. 7. Understand the importance of insect collections for biodiversity research.

Learning outcome: After completing this certificate course the students will be able to work as a curator in any insect museum and play a key role in Entomology research.

Module 1: Introduction to Insect Classification (4 hours)

Introduction to insects (Hexapoda) and their diversity. Importance of insect classification and taxonomy. Linnaean taxonomic hierarchy (Kingdom, Phylum, Class, Order, Family, Genus, Species). Binomial nomenclature

Module 2: Insect Morphology (4 hours)

External anatomy of insects (head, thorax, abdomen, appendages). Key morphological features used for identification (wings, legs, mouthparts, antennae). Body segmentation and sclerites

Module 3: Major Insect Orders (4 hours)

Introduction to the major insect orders (e.g., Coleoptera, Lepidoptera, Diptera, Hymenoptera, Hemiptera). Distinguishing characteristics of each order. Ecological roles and economic importance of different insect groups

Module 4: Identification Tools and Techniques (4 hours)

Dichotomous keys: understanding structure and using them for identification. Online resources for insect identification (websites, digital keys). Importance of reference collections and museum specimens. Introduction to insect taxonomy photography

Module 5: Insect Collection Methods (2 hours)

Field equipment for insect collecting (nets, aspirators, light traps). Techniques for collecting insects in diverse habitats (terrestrial, aquatic). Importance of responsible collecting practices. Data collection during insect surveys (location, date, habitat type)

Module 6: Insect Preservation Techniques (4 hours)

Dry preservation (pinning and point mounting). Techniques for pinning different insect body types (beetles, butterflies, flies). Wet preservation (using ethanol) for soft-bodied insects. Labeling techniques for insect specimens (data labels)

Module 7: Insect Collection Management (4 hours)

Curation practices for insect collections (storage, pest control). Organization and labeling systems for insect collections. Importance of insect collections for research and education

Module 8: Hands-on Training (4 hours)

Practical application of identification skills using insect specimens. Utilizing dichotomous keys and online resources for hands-on identification. Demonstration and practice of insect pinning and point mounting techniques. Curating a small insect collection (individual or group project)

Required Textbook:

Borror and DeLong's Introduction to the Study of Insects (latest edition) by Triplehorn and Johnson

Course coordinator: Dr. Arijit Gangopadhyay
Department of Zoology