

ABN Seal College
Department of Botany
Add-on Course
SYLLABUS

**ADD-ON COURSE ON STANDARD HERBARIUM
TECHNIQUES**

DEPARTMENT OF BOTANY
ACHARYA B. N. SEAL COLLEGE
COOCH BEHAR
Syllabus Distribution

Topics	Name of the Teacher
Theory	
1. Herbarium: Introduction, History, objective of this course 2. Role of Herbarium in teaching and research; standard Herbarium sheet; types of Herbaria, acronym, Important Herbaria in World and India. 3. Techniques: Collection, Field equipment's, Field work; Field note book (Field Diary); Processing of Specimen, Poisoning, pressing. Drying, mounting, stitching, labeling, Identification or determination of plants, incorporation and arrangement, Maintenance. 4. Understanding the knowledge of herbarium specimen arrangement based on any classification system (Bentham -Hooker) 5. Collection, preservation and identification of Algae and Bryophytes 6. Survey, collection, identification and preservation of fungi.	AD
7. Recent concept: Digitalization of Herbarium	BG
Practical	
1. Selection of Plant specimen for Herbarium and its Collection; Pressing, Drying, poisoning, stitching, labeling, and deposition of Herbarium. 2. Field note book preparation 3. Arrangement of Herbarium using Bentham and Hooker system of Classification 4. Digitalization of Herbaria - Demonstration 5. Field/ Herbaria Visit 6. Assignments/ Project submission	AD, BCS & AM
Evaluation	AD, BCS & AM

Abbreviations: BCS: Dr. Binod Chandra Sharma, AD: Sri Ajoy Das, AM: Dr. Aninda Mandal

DETAILED SYLLABUS FOR ADD-ON COURSE ON STANDARD HERBARIUM TECHNIQUES

DEPARTMENT OF BOTANY
ACHARYA B. N. SEAL COLLEGE
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Theory

20 Marks

1. Herbarium: Introduction, History, objective of this course
2. Role of Herbarium in teaching and research; standard Herbarium sheet; types of Herbaria, acronym, Important Herbaria in World and India.
3. Techniques: Collection, Field equipment's, Field work; Field note book (Field Diary); Processing of Specimen, Poisoning, pressing. Drying, mounting, stitching, labeling, Identification or determination of plants, incorporation and arrangement, Maintenance.
4. Understanding the knowledge of herbarium specimen arrangement based on any classification system (Bentham -Hooker)
5. Recent concept: Digitalization of Herbarium
6. Collection, preservation and identification of Algae and Bryophytes
7. Survey, collection, identification and preservation of fungi.

Practical

25 Marks

1. Selection of Plant specimen for Herbarium and its Collection; Pressing, Drying, poisoning, stitching, labeling, and deposition of Herbarium.
2. Field note book preparation
3. Arrangement of Herbarium using Bentham and Hooker system of Classification
4. Digitalization of Herbaria - Demonstration
5. **Field/ Herbaria Visit**
6. **Assignments/ Project submission**

Internal Assessment

05 Marks

Suggested Readings

1. Singh, G. Plant Systematics: An Integrated Approach (3rd ed.), 2016, CRC Press
2. Dutta, S.C. systematic Botany, Latest Ed., Wiley Eastern.
3. Prain, D. Bengal Plants (Vol I & II), Bishen Singh Mahendra Pal Singh.
4. Mondal, A. Taxonomy: Advances Plant Taxonomy 2005, New Central Book Agency

DEPARTMENT OF BOTANY, ABN SEAL COLLEGE, COOCH BEHAR

ADD-ON COURSE ON STANDARD HERBARIUM TECHNIQUES

Course Outcome:

A five-day long Add on course on Standard Herbarium Techniques was organized by the Department of Botany, ABN Seal College from 14.05.2023-18.05.2023. The main motto of this course was to encourage students to gather some knowledge on a practical basis from which they will be benefitted to choose their upcoming opportunities. Registration is free for all the students of this college. One of the good sides of this course is that students from any other department can participate in this five-day long (32 hours+) Add on Course.

A detailed syllabus had been prepared for Standard Herbarium Techniques (total marks:50). Class routine had also been prepared with the simultaneous distribution of theory and practical classes. Classes started from 11 AM and end at 5.30 PM (2 PM-2.30 PM recess). Students had to prepare a project about a particular topic given to them carrying 15 marks. The Standard Herbarium Techniques classes were mainly taken by Dr. Binod Chandra Sharma and Smt. Mousikha Lala.

The learning outcomes are-

- It explains the basic concepts of plant taxonomy and plant systematics.
- Express all categories hierarchically with the specifications.
- Understands the usage of correct scientific names.
- Students will be capable of knowing the history of herbarium and its aim of using.
- Students will be able to understand how the herbariums should be organised.
- Understand the working rule in an International herbarium.
- Students will be able to learn how the specimens are collected and preserved.
- Understand the usage of floras and identification keys.
- Students will be capable to organise the identified plants according to scientific rules.
- Students can utilise the herbaria for research purposes.