



**P.B. SIDDHARTHA COLLEGE OF ARTS & SCIENCE**

Siddhartha Nagar, Vijayawada – 520 010

*Autonomous - ISO 9001 – 2015 Certified*

**Title of the Paper: Herbarium Methodology**

**Offered to:** BSc.BZC with Programme code US03

**Course Type:** SDC

**Year of Introduction:**

**Year of Revision:**

**Percentage of Revision:**

**Semester:** VI

**Credits:** 02

**Hours Taught:** 30 hrs. per Semester

**Max.Time:** 3 Hours

**Course Prerequisites:** Knowledge of herbarium methodology studied in intermediate.

**Course Description:** This course will provide one with a basic and comprehensive understanding of herbarium. Enable the student with depth of topics and helps them to gain an appreciation in collection and processing of specimens. On the other hand, importance of understanding maintenance of herbarium, handling of specimens provides an extensive knowledge to the student.

**Course Objectives:**

1. To study herbarium methodology and its role.
2. To study the field work, collection types.
3. To study the processing of specimens.
4. To study the maintenance of herbarium.
5. To study the handling of specimens.

**Course Outcomes:** At the end of this course, students should be able to:

CO1: Remember the historical development and etymology of herbarium.

CO2: Understand the importance of herbarium, functions, role in teaching and research.

CO3: Apply collection of special groups.

CO4: Analyze processing of specimens.

CO5: Evaluate maintenance of herbarium, handling of specimens.

CO-PO MATRIX							
CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1					L		
CO2						M	
CO3					H		
CO4					H		
CO5					H		

**Syllabus**

**Course Details**

Unit	Learning Units	Lecture Hours
I	<b>Herbarium:</b> Introduction, Historical Development and Etymology of Herbarium, Importance of Herbarium, Functions of Herbarium, Role of herbarium in teaching and Research, Largest Herbarium in the World, Major	6

	Herbaria in India	
II	<b>Collection</b> Kinds of Field Works, Laws of Ethics of Collection, Collection of Special Groups Collection of Algae, Collection of Sea weeds, Collection of Fungi, Collection of Lichens, Collection of Bryophytes, Collection of Pteridophytes, Collection of Gymnosperms, Numbering and Tagging.	6
III	<b>Processing of Specimens</b> Poising-Mercuric chloride, Lauryl pentachloro phenate, Formalin, Blotting materials Special preservation, Pressing of Aquatic plants, Drying, Mounting, Poising the plant on the sheet and stitching, Strapping, Labelling, Nomenclature, Accessioning, Bar Coding Herbarium Digitalization, Retrieval using DBMS, Incorporation /Filling	6
IV	<b>Maintenance of Herbarium</b> Systematic arrangement of Families, Genus Covers, Species Covers, Determinavits, Dummy folders, Herbarium Cupboards, Temperature and Humidity, Fire precautions, Pest and insect treatments, Methods of decontamination, Specimen maintenance, Photographs, Drawings, Maps, Record keeping and Retrieval systems, Receipt of specimens in the Herbarium, Loan to other Institutions	6
V	<b>Handling of Specimens</b> Herbarium Guide	6

**Recommended Reference book:**

1. Porter, C.L. (): Taxonomy of flowering Plants, Eurasia Publishing House, New Delhi.
2. Lawrence, G.H.M. (1953): Taxonomy of Vascular Plants, Oxford & IBH Publishers, New Delhi, Calcutta.
3. Jefferey, C. (1968): An Introduction to Plant Taxonomy J.A. Churchill, London.
4. Mathur, R.C. (1970): Systematic Botany (Angiosperms) Agra Book Stores- Lucknow, Ajmer, Allahabad, Delhi.

**Course Delivery method:** Face-to-face / Blended.

**Course has focus on:** Foundation/Skill Development

**Websites of Interest:**

<https://youtu.be/9uWg59EFFwc>

<https://youtu.be/kxEq0AEjp5I>

<https://www.youtube.com/watch?v=KIev0P8JtbE>

**Model Question Paper Structure for SEE**

**Time: 3Hrs**

**Max. Marks: 35M**

1. 20 Herbarium Sheets  
20x1= 20M

2. Field Note Book

**10M**

3. Viva-voce

**5M**