

GOVERNMENT GENERAL DEGREE COLLEGE, MANGALKOTE

DEPARTMENT OF BOTANY

**SYLLABUS FOR ADD-ON
COURSE IN ETHNOBOTANY AND
MEDICINAL PLANTS**

(Effective from the Academic Session 2022-23)



Dr. Pradipta Kumar Basu
OFFICER IN CHARGE, W.B.E.S.
Government General Degree College, Mangalkote
Dt. Purba Bardhaman, West Bengal- 713132

Course Design

Course background

- Holistic development of the participating students.
- Development of scientific temper among students by bringing them in direct contact with the environment.
- Understanding the practical applicability of the elements of nature in their vicinity.
- Correlating the situatedness of the institution with the curriculum.

Requirements

- *Student-participants*: Internal. Compulsory for students of **B.Sc. Zoology (H) Sem III**.
- *Teachers*: Internal. Faculty members of Department of Botany, GGDC at Mangalkote. External faculty members, research scholars and scientists may be invited to conduct some classes depending on their willingness and availability.
- *Course Fee*: Nil.
- *Intake Capacity*: 25
- *Contact hours*: 30 hrs.
- *Class/Lecture duration*: 1 hr.
- *Duration of field study*: Local – 04 hrs., Outstation – 08 hrs.

Objectives of the course

Introduction to Ethnobotany and medicinal plants explores the fundamental relationships that exist between plants and indigenous/traditional cultures from around the world. The course presents the history of indigenous/traditional plant use in relation to cultural development as well as how modern scientific approaches to ethnobotanical investigation are revealing new and exciting applications for plant materials. It also provides information on various categories of plant use, the importance of traditional knowledge to Western culture, and the role of plant conservation and cultural sustainability. Thus, this course will enable the students to -

- Know about the traditional knowledge of plants and their uses especially their roles in curing various human diseases
- Acquire knowledge on various types of drug preparation
- Understand various phytochemicals involved in therapeutics
- Study certain important plants involved in home remedies
- Understand the importance of preservation and conservation of indigenous medicinal plants.



Career prospects

Students will develop skills in preparing herbarium and know its role in identification of medicinal plants. They will come close to understanding the correlations between ethnobotany and ayurveda. Development of research aptitude will help them in their future aspirations. In terms of employability skills they can find positions in NGOs related to plant conservation and biodiversity conservation projects.

Correlation to situatedness of the institution

Since the institution is located in a rural belt of Purba Bardhaman rich in floral resources, the course will largely benefit the participating students to appreciate their surroundings and learn the practical applicability of the resources in their proximity. It will also make them aware of the hidden potentialities of nature in their surroundings. It will aid to develop love for local biodiversity and enable them to make the local people aware of the blessings of nature which will thereby promote their interests for conservation of natural resources.

Human dimension of the course

The course will help the students to understand the correlations between the socioeconomic stratification of the society and the evolution of ethnobotany as a vanishing tool for treatment of human ailments. It can be regarded as an awareness programme on the role of humans in the diminishing floral resources and the ways of conserving them. Last but not the least, the field studies and group works will help to foster a sense of brotherhood among the students which will help in their future group work or collaborative work.

Modern pedagogy

The course aims to foster heuristic and exploratory learning and is based on the principles of learning-by-doing. Continuous and comprehensive evaluation will help in reinforcement of the course objectives.

Process of continuous assessment and grading

It will be based on the following:

- Attendance of the students
- Continuous assessment in both theoretical class and field visits
- Multiple Choice Questions
- Viva-voce
- Submission of field study report and herbarium



Expected outcomes of the course

After completing the course, the students will have the knowledge and skills to do the following:

- Describe how the science of ethnobotany is applied in the understanding of relationships between plants and indigenous/traditional cultures
- Describe how botany and biochemistry are used in identifying and understanding the ethnobotanical value of a given plant species
- Develop the skills and methods used to collect and preserve plant materials
- Be able to discuss patterns of human plant selection for food, medicine, poison, ritual and religion
- Understand important interactions between cultural practices, ecosystems, and modern science
- Know and/or identify important medicinal plant species
- Know specific plant taxa used by tribal people
- Have knowledge on the practical application of medicinal plants in their surroundings

Student feedback

It will be collected via Google Form after completion of the course.



Syllabus contents

Units	Course contents (Theory)	Class/Lectures
1	Introduction and objective of Ethnobotany; Ethnobotany as an interdisciplinary science; The relevance of ethnobotany in the present context	02
2	Some common ethnic groups or Tribals of India and their life styles; Plants used by the Tribals: a) Food plants b) Medicines and miscellaneous uses	04
3	Role of ethno botanical practices in modern medicine with example of some common medicinal plants	03
4	Biopiracy, Intellectual property rights and traditional knowledge	03
5	History, Scope and importance of medicinal plants with some common examples; Application of natural products to certain common diseases	04
6	Conservation of medicinal plants	02
Total no. of lectures		18*

*** Duration of 01 class/lecture = 01 hour.**

Practical/Field study/Project	
1	Study of medicinal plants in the locality/botanical garden and collection of plant samples for preparation of Herbarium (8+4= 12 hours)

Examination pattern:

1. Multiple Choice Questions – 10 marks
2. Viva voce – 10 marks
3. Field study report – 10 marks
4. Herbarium – 10 marks

Full Marks: 40

Gradation pattern:

Percentage of marks obtained	Grade
90-100	Excellent - A
70-89	Good - B
50-69	Fair - C
40-49	Not Eligible for Certificate - D

CERTIFICATE WILL BE PROVIDED BY THE COLLEGE AFTER COMPLETION OF COURSE

 COURSE