# Lecture Plan

**Name of the college:** Government college of arts science and commerce Sanquelim-Goa

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| **Name of Faculty:** Anuja Naik | **Subject:** Botany( diversity of microbes and non flowering plants) | |
| **Paper code: BOT-200** | **Program/Course: S.Y B.Sc.** | **Division: A** |
| **Academic year: 2024 - 2025** | **Semester: III** | **Total Lectures: 15** |

**Course Objectives:** 1. Familiarize students with diverse groups of microbes and non-flowering plants.
2. Provide the ability to identify and classify microbes and non-flowering plant groups.
3. Impart knowledge of the morphology, life cycle, reproduction and economic importance of various microbes and non-flowering plants

**Course Learning Outcome:** 1. Identify and classify microbes and non-flowering plants based on their characteristic features.
2. Compare and contrast the morphological features within and between the groups for a comprehensive understanding of the basis of their classification.
3. Examine the life cycle and methods of reproduction of microbes and non-flowering plant groups.
4. Appraise the economic importance of microbes and non-flowering plants.

| Month | Lectures From: | To: | No. of lectures allotted | Topic, Subtopic to be covered | Learning outcome | Exercise /Assignment | ICT Tools | Reference books |
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| July | 17/07/2024 | 20/07/2024 | 1 | Module 2: Algae and Bryophytes Algae: General characteristics; | Students able to explain the general characteristics of the algae | | Power point presentation | College botany by B.P.Pandey |

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| | 21/07/2024 | 27/02/2021 | 1 | range of thallus structure; | Students define the various types of thallus structure in algae. | Ask students to observe the algae in their surrounding | |
| | 28/07/24 | 31/07/24 | 0 | | | | |
| | 1/08/24 | 3/08/24 | 1 | Smith's classification; | Students remember the classification given by Smith. | | |
| | 5/08/24 | 10/08/24 | 1 | life cycle patterns (haplontic, diplontic, isomorphic, heteromorphic, | Students explain and draw the haplontic, diplontic, isomorphic and heteromorphic type of life cycles in algae. | | |
| | 12/08/24 | 17/08/24 | 1 | life cycle patterns (haplobiontic and diplobiontic) | Students explain and draw the haplobiontic and diplobiontic type of life cycles in algae. | | |
| August | 19/08/24 | 24/08/24 | 1 | methods of reproduction; | Students able to identify and explain the different types of reproduction in algae. | | |

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| | 26/08/24 | 31/08/24 | 1 | morphological features of Nostoc, Spirogyra, | Students understand the morphology of Nostoc and spirogyra. | | |
| | 2/09/24 | 7/09/24 | 0 | | | | |
| | 09/09/24 | 14/09/24 | 1 | Sargassum and Polysiphonia; ecological and economic importance. | Students understand and explain the morphology of Sargassum and Polysiphonia and also explain the ecological economic importance of algae. | | |
| | 16/09/24 | 21/09/24 | 1 | Bryophytes: General characteristics; | Students explain the general characteristics of Bryophytes | Students are instructed to do keen observation of the mosses in their surrounding | |
| September | 23/09/24 | 28/09/24 | 1 | Smith's classification; | Students remember the classification given by Smith for Bryophytes. | | |
| October | 1/10/24 | 5/10/24 | 1 | alternation of generations; | Students understands the alteration of generation in Bryophyrtes. | | |
| | 7/10/24 | 12/10/24 | 1 | methods of | Students able to | | |

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| | | | | reproduction; | identify and explain the different types of reproduction in Bryophytes. | | | |
| | 14/10/24 | 19/10/24 | 1 | morphological features of Riccia, Anthoceros and Funaria; | Students understand and explain the morphology of Riccia, Anthoceros and Funaria; | | | |
| | 21/10/24 | 22/10/24 | 1 | ecological and economic importance. | Explain the ecological and economic importance of the bryophytes. | | | |
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