

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 (Fundamentals of Botany) | | | | |
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| Paper code: BOT-111 | | | Program/Course: F.Y B.Sc. | | | Division: A | | |
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| Academic year: 2024 - 2025 | | | Semester: II | | | Total Lectures: 15 | | |
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| Course Objectives: This course aims to increase the understanding about the diversity, identification, classification, evolutionary history, relationship of plants with man and other sciences, fundamentals of different branches in Botany, studying the plants with regards to their morphological features, physical, chemical and biological functioning of plants and various plant processes with emphasis on basic instruments and techniques used in the Botanical studies. Laboratory exercises are designed to give hands on experience in handling all specimens and to understand the processes and functioning of plants. | | | | | | | | |
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| Course Learning Outcome: 1.Outline the classification of life and identify the characteristics features of plant kingdom. 2. Summarize the evolutionary history of plants. 3. Outline the different branches in botany and their relation to other sciences. 4. Analyse the morphological features of plants. 5. Examine the stages of plant growth, plant cells, processes and its responses | | | | | | | | |
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| Month | Lectures From: To: | | No. of lectures allotted | Topic, Subtopic to be covered | Learning outcome | Exercise/ Assignmen t | ICT Tool s | Reference books |
| December | 9-12-24 | 14-12-24 | 1 | Module 1: Introduction to plant kingdom Fundamental notions of plants: Relation of plants to man | Students are able to explain the role of plants in human life. | | Pow er point pres entat ion | Plant systematic by Gurcharan Singh |
| | 16-12-24 | 21-12-24 | 1 | relation of Botany to other sciences | Students are able to link the botany with other subjects. | Students are asked to write the uses of plants in | | Fundament al of plant physiology by V.K. |

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| | | | | | | their notebook | Jain. Techniques in microscopy and cell biology by VK Sharma |
| | 23-12-24 | 23-12-24 | 1 | brief description of various branches in Botany (Systematic botany- Classification, Taxonomy and nomenclature; | Students are able to describe systematic botany | | |
| January | 2-1-25 | 4-1-25 | 0 | | | | |
| | 6-1-25 | 11-1-25 | 1 | Morphology – external, internal | Students explains the internal and external morphology of plants | | |
| | 13-1-25 | 18-1-25 | 1 | Embryology, Physiology. | Students define embryology and physiology | | |
| | 20-1-25 | 25-1-25 | 1 | ISA I + Phytogeography, Economic Botany, Ecology | Students explain and define phytogeography, economic botany and ecology | | |
| | 27-01-25 | 31-1-25 | 1 | Cytology and Cytogenetics, Ethnobotany and biotechnology. | Students explain and define Cytology and cytogenetics, ethnobotany and Biotechnology. | | |
| February | 3-2-25 | 8-2-25 | 1 | Molecular Biology, Biochemistry | Students define molecular biology and biochemistry | | |
| | 10-2-25 | 15-2-25 | 1 | Evolutionary history of plants: Evolution of plants on geological time scale; | Students understand the evolution of plants on | Students are asked to do homework | |

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| | | | | | geological time scale. | on fossils based on their understanding | | |
| | 17-2-25 | 22-2-25 | 1 | Paleobotany: Fossil formation process, | Students define paleobotany and explain the formation of fossils. | | | |
| | 24-2-25 | 28-2-25 | 1 | types of fossils – Impression, Compression, Petrification and coal balls. | Students are able to identify different types of fossils based on the theoretical knowledge gained | | | |
| March | 3-3-25 | 8-3-25 | 1 | Broad classification of plant kingdom: Introduction to seven kingdom classification of life, | Students are able to classify the plants into seven kingdom | | | |
| | 10-3-25 | 15-3-25 | 1 | Characteristic features of the plant kingdom. | Students recall the characteristics features of the plant kingdom. | | | |
| | 17-3-25 | 22-3-25 | 1 | ISA III + Classification of Plant kingdom up to divisions (G.M. Smith's classification) | Students classify the plants kingdom according to Smith's classification. | | | |
| | 24-3-25 | 29-3-25 | 1 | Classification of Plant kingdom up to divisions (G.M. Smith's classification) | Students classify the plants kingdom according to Smith's classification. | | | |

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| April | 1-4-25 | 5-4-25 | | Revision | | | | |
| | 7-4-25 | 11-4-25 | | Revision | | | | |