Course Code	Course Name	Credits
26BY152	PLANT DIVERSITY- II LAB	02

Objective

The course aims to provide practical knowledge of the morphology, anatomy, and reproductive structures of gymnosperms and fossil plants. It helps students develop skills in microscopic techniques, slide preparation, and specimen identification. The lab also enhances understanding of plant evolution, diversity, and life cycles of major groups. Additionally, it introduces fossil analysis and its importance in interpreting the evolutionary history of plan.

1. Stelar evolution-different types of stele (Photograph and specimens).
2. *Psilotum*: External morphology, anatomy of stem and of synangium.
3. *Lycopodium*: Habit, anatomy of stem and strobilus.
4. *Equisetum*: Habit, anatomy of rhizome, stem and L. S. of strobilus.
5. *Selaginella*: Habit, anatomy and L.S of strobilus
6. External morphology and reproductive structures: Megasporphyll and Microsporophyll.
7. *Cycas*: Morphology of bulbils, anatomy of coralloid root, leaflet and petiole.
8. *Pinus*: Habit, Morphology of long shoot and dwarf shoot; Needle leaf anatomy; L.S of male and female cone.
9. *Gnetum*: Habit, anatomy of stem and leaf, morphology of male and female cone; L.S of male and female cone.
10. Paleobotany: Fossil specimens Rhynia, Lepidodendron, Lyginopteris, Heterangium, and Lagenostoma (Photograph or specimen).

Students are required to perform and record at least eight experiments in the laboratory manual as part of the course requirements.