

DEPARTMENT OF BOTANY
PLANT TISSUE CULTURE
SYLLABUS

Course Outcomes

To provide self-employability skills among students in plant tissue culture

Course Content

Total Hours: 30

Topic	Hrs
Module 1	3 hrs
Introduction to plant tissue culture- Brief introduction to plant tissue culture, History of plant tissue culture and its importance, Cellular totipotency, In vitro differentiation, Glass goods and instruments.	
Module 2	3 hrs
Aseptic techniques in culture- Sterilization, Different methods, Sterilization of laboratory (fumigation), Sterilization of instruments and glass ware, medium, explant, working principle of laminar air flow and autoclave.	
Module 3	3 hrs
Tissue culture medium-Basic components of plant tissue culture medium Murashige and skoog medium, Preparation of stock solutions.	
Module 4	6 hrs
Different phases of micro propagation-Selection of explant, Surface sterilization, Inoculation, Incubation, Subculturing, In vitro and in vivo root hardening, transplantation and field evaluation, Advantage and disadvantages of micro propagation, Somaclonal variation.	
Practicals	15 hrs
1. Micropropagation of ornamental plants.	
2. Micropropagation of endangered plant species.	
3. Micropropagation and culturing of banana.	

DEPARTMENT OF BOTANY
ENTREPRENEURIAL SKILL DEVELOPMENT IN ECOFRIENDLY PRODUCT
MAKING

SYLLABUS

Eco-friendly products help to maintain a friendly and healthy relationship between human beings and their surroundings. It is the responsibility of every person to take good care of his or her surrounding environment. Eco-friendly practices and products inflict no threat to the environment as these products and practices conserve and protect natural resources. They have the least negative impacts on land, water and air. Upholding this idea, the department of Botany is offering a certificate course in this aspect to cater the needs of present environmental scenario thereby ensuring a green environment in the campus. It is an excellent opportunity for the students to develop their self-employability skills as well.

Course Outcomes

- To provide self-employability skills
- To generate environment consciousness

Course Content

Total Hours: 30

<p>Module I</p> <ol style="list-style-type: none"> 1. Eco-friendly products – An overview, scope and significance 2. Materials commonly employed for product making – familiarizing the materials and tools required 3. Marketing value and self-employment opportunities 	<p>(5 hrs)</p>
<p>Module II</p> <p>Hands on training on the following products:</p> <ol style="list-style-type: none"> i. Bags - Paper bags, Cloth bags, Vanity bags ii. Files – Paper files, Jute Files iii. Pen making – Paper Pens iv. Pouches – Cloth pouches v. Pen Stand – Soft wood vi. Mats – Cloth mats vii. Envelopes – Official envelopes and covers using paper viii. Wall decorates – using different materials ix. Ornaments – earrings, necklace, bangles using terracotta and Paper x. Flower vase and flowers 	<p>(25 hrs)</p>