



**Deccan Education Society's  
Fergusson College, Pune  
Department of Botany  
M.Sc. (Botany)**



### **CURRICULUM**

This is a full time two years, four semester course meant for graduates in Botany.

The basic aim of this course is

- To improve understanding of basics of classic botany as well as advances in Plant Biotechnology.
- To provide hands on training to students with the help of revised practicals of biotechnology e.g. RT PCR, southern & western hybridization, etc.
- To create interest in the students about the field of research.

- To prepare students to step up in the career of pure sciences.
- To create scientific temper and research attitude in students

### **COURSES**

Master's degree in Botany is of 100 credits. Every student has to complete 100 credits in a minimum of four semesters. M.Sc. Botany course for affiliated colleges is designed by BOS in Botany, S. P. Pune University. In addition to this there are 10 additional compulsory credits prescribed by SPPU.

### **PRESCRIBED COURSE (100 credits)**

#### **SEMESTER I (26 credits)**

BO 1.1 Cryptogamic Botany I,  
BO 1.2 Biochemistry and Plant Physiology, BO  
1.3 Genetics and Plant Breeding, BO 1.4  
Botanical Techniques, Practical BO1.5 (based  
on BO 1.1 and BO 1.4), Practical BO1.6 (based  
on BO 1.2 and BO 1.3)

#### **SEMESTER II (26 credits)**

BO 2.1 Cryptogamic Botany II, BO 2.2 Cell  
Biology & Evolution, BO 2.3 Molecular  
Biology & Genetic Engineering

BO 2.4 Plant Ecology and Phytogeography,  
Practical BO2.5 (based on BO 2.1 and BO 2.2),  
Practical BO2.6 (based on BO 2.3 and BO 2.4)

#### **SEMESTER III (24 credits)**

BO. 3.1 Spermatophytic Botany, BO. 3.2  
Developmental and Economic Botany, BO. 3.3  
Industrial Botany, BO 3.45 Advanced Plant  
Biotechnology (Elective Paper), Practical BO  
3.5 (based on BO 3.1, BO. 3.2 & BO.3.3),  
Practical BO. 3.6 (based on Special Paper BO.  
3.45)

#### **SEMESTER IV (24 credits)**

BO 4.1 Computational Botany,  
BO 4.2 Plant Organism Interaction, BO 4.3  
Industrial Botany II, BO 4.4 Plant Pathology,  
Practical BO 4.5 (based on BO 4.1, BO 4.2.,  
BO 4.3. and BO 4.4), BO 4.6 Research  
Methodology and Summer Training

### **ADDITIONAL COMPULSORY COURSE (10 credits)**

Introduction to Cyber Security/ Information  
Security. (4credits)

Human Rights (2 Credits)

Skill Development (4 Credits)

The skill development course is "**Introduction  
to applications of Plant Biotechnology**"  
which includes 4 credits as:

1. Plant growth promoting bacteria and fungi
2. Post harvest technology and food processing
3. Micropropagation Course
4. Commercial Cultivation and processing of Medicinal and Aromatic Plants

### **PLACEMENTS**

As a part of preplacement activity and continuous internal assessment, students are equipped with the different skills before actual placement activity. This includes:

- Seminars
- Presentations
- Group discussions
- Extended activities
- Quiz contests
- Demonstrations
- Submissions
- Review & Report writing

Students experience improvement in their communication & presentation skills while completing the course.

We try to improve students' understanding of the recent advances in the field of botany by arranging lecture series and workshops.

### **RECRUITERS**

Our recruiters are Research institutes, educational institutes and agro based industries and companies like:

- ARI, Pune
- VSI, Pune
- KF Bioplants
- NCL, Pune
- Several NGO's
- Plant tissue culture labs
- Nurseries and hitech labs.
- Plant breeding and seed supplying companies

### **CONTACT**

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