

**Non-Conventional Courses Cell**  
**Course Proposal Form**

I Dr. SAYANI MUKHERJEE Lecturer / Sr. Lecturer / ASSISTANT Professor in

Botany wish to conduct a short duration course details of which are as follows :

1. Name of the Course : Certificate Course on Identification and characterization of phosphate solubilizing bacteria from different soils.
2. Duration of the Course : 10 Days
3. Tentative Dates of the Course : May - June 2018
4. Course Fee : ₹ 1000/-
5. A Brief Outline of the Course :  
(Content of the Course)
  1. Isolation and Screening of bacteria from different soil
  2. Determination of total viable count and growth experiment.
  3. Antimicrobial activity testing.
  4. Bacterial identification - microscopic.
  5. Bacterial culturing.
6. Faculty for the Course : 1.  
(Number & Names)
  - a) External
  - b) Internal Dr. Sayani Mukherjee
7. Venue for the Course : Botany Department.
8. Capacity / Seats 15 students.
9. Assistance required from the Non-Conventional Courses Cell  
Nil.

Date : 30/01/2018.

Sayani Mukherjee  
Approved by the Principal

Principal

Dempo Charities Trust's  
Dhempe College of Arts & Science.  
Panaji-Goa.

Sayani Mukherjee  
Signature

## Course proposal

### **Certificate course on identification and characterization of phosphate solubilizing bacteria from different soils.**

This certificate course offers hands-on practical training programs at different levels addressing specific industries so as to sharpen the skills and techniques of students. This will give the impetus for the students to get a better job opportunity, have higher confidence level and also for zooming-in on a particular segment of interest to develop their career.

The program is offered to students undergoing program in Microbiology, Biochemistry, Biotechnology, Botany etc. In addition to the practical training the program also gives an excellent opportunity to students to use and work with latest equipments and concepts. Students perform interesting experiments in small groups as well as individually. At the end of the program, interactive session will be held to assess the training and also give appropriate counseling which acts as an eye-opener for the budding microbiologist.

### **Broadly the program will cover:**

1. Isolation and screening of bacteria from different soil
2. Determination of total viable count and growth experiment
3. Bacterial identification – biochemical tests
4. Antibiotic susceptibility testing
5. Presentation by the student.

### **Course Offered:**

The training will be of 10 days. Short term training programs will be imparted in the months of May and June. Each objective consists of a short lecture session and hands-on laboratory practices.

**Course Title:** Certificate course on identification and characterization of phosphate solubilizing bacteria from different soils.

**Duration:** 4 Hours (Every day 10 am- 02 pm)

**Recourse Person:** Dr. Sayani Mukherjee

**Contact Person:** Dr. Sayani Mukherjee, Assistant Professor, Department of Botany

**Student Fees:** Rs. 1000.00 per student.





**Dempo Charities Trust's  
Dhempe College of Arts and Science  
Panaji, Goa**

## Report of the Value Added Course

Dr. Sayani Mukherjee conducted a short term ten (10) days certificate course on “**Microbial Techniques**” at the department of Botany from 02<sup>nd</sup> May 2018 to 05<sup>th</sup> May 2018 and 08<sup>th</sup> May 2018 to 12<sup>th</sup> May 2018 and 14<sup>th</sup> May 2018.

Total sixteen (16) students enrolled for the course.

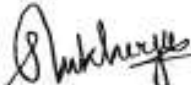
An amount of Rs. 100.00 per [person was charged as the fee.

The topic covered were on the general microbiological techniques

Hands on training in the various techniques

1. Media preparation, wrapping and sterilization techniques,
2. Isolation of bacteria from soil, air, tap water and marine water
3. Spread and pour plate techniques
4. Inoculation and incubation techniques
5. Antibiotic assay by agar cup method.

Certificate will be distributed to the participants who attended the course.

  
Dr. Sayani Mukherjee  
Course Coordinator

14/05/2018

Date: 11<sup>th</sup> May 2018

From  
Dr. Sayani Mukherjee  
Dhempe College of Arts & Science  
Miramar

To,  
The Principal  
Dhempe College of Arts & Science  
Miramar

Sub: Change of course title

Respected Madam,

This is to inform you that, the title of the Value Added course conducted by the department of Botany has been changed from "Certificate Course on Identification and Characterization of Phosphate Solubilizing Bacteria from Different Soil" to 'Certificate course on Microbial Techniques'.

Thanking You

Yours faithfully

*Sayani Mukherjee*  
Sayani Mukherjee

Noted  
HOD Botany  
*Sayani Mukherjee*  
11/5/18

D.C.T	
Dhempe College of Arts & Science Miramar, Panaji, Goa	
INWARD ENTRY	
Inward Entry No.:	2893
Entry Date:	11/5/18
Receiver's Signature:	<i>[Signature]</i>