Dempo Charities Trust's
DHEMPE COLLEGE OF ARTS & SCIENCE
Miramar, Panaji-Goa

Certificate course on 'Collection, Isolation and Identification of FUNGI'-

2016-17

Course Objectives

- To train students on identification of fungi
- The importance of fungi
- Provide students with the knowledge, skills and confidence in fungal isolation/identification.

Course Content

- General introduction to fungal structure, growth and classification.
- Processing samples for fungal culture, microscopic examination, evaluation of fungal groth media, methods for presumptive and full identification of fungal isolates, recording and interpretation of results.

Course Outcomes

The course is delivered over 5 days and is designed to provide participants with an introduction to laboratory investigation of micro-fungi and is also useful to those wishing to update their practical skills and knowledge. Information will be delivered in combination of lectures and practical session. The three day course has been specially developed for aspiring young students and for lovers of fungi those who want to know more about these organisms. The goal of certificate program is for participants to be able to isolate and identify microfungi from varied habitats. There will be detailed explanations of isolation and identification of fungi followed by laboratory hands on exercises.

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2016-2017

~~2015-2016~~

List of Students attended Certificate Course on 07th -09th, 14th -15th November 2016.

"Certificate Course on Collection, Isolation and Identification of Microfungi"

Sr. No.	Name of the Student	Class	Subject
1.	Manali M. Phadte	F.Y. Bsc. Biotech	Biotechnology
2.	Resha R. Gaonkar	F.Y Bsc	Biotechnology
3	Diksha D. Prabhu Gaonkar	F.Y. BSC	CBZ
4	Maithili Majithia	F.Y. B.Sc.	CBZ
5	Aditi Sathe	F.Y. B.Sc.	CBZ
6.	MEDURY VIPANCHI	F.Y B.Sc	BIOTECHNOLOGY
7	Anvruddh Shirodkar	FY BSC	BIOTechnology

DCT'S
DHEMPE COLLEGE OF ARTS & SCIENCE
DEPARTMENT OF BOTANY

ATTENDANCE FOR THE CERTIFICATE COURSE IN BOTANY
Name: "Certificate Course on Collection, Isolation and Identification of Microfungi"
Date: 07th -09th, 14th -15th November 2016

Sr. No.	Name of the Student	Dates Signature				
		07.11.16	08.11.16	09.11.16	14.11.16	15.11.16
	Manali M. Phadte	Phadte	Phadk	Phadk	Phadte	Phadk
	Resha R. Gaonkar	Gaonkar	Gaonkar	Gaonkar	Gaonkar	Gaonkar
	Diksha D. Prabhu Gaonkar					
	Maithili Majithia					
	Aditi Sathe	Aditi	Aditi	Aditi	Aditi	Aditi
	M. VIPANCHI	Vipanchi	Vipanchi	Vipanchi	Vipanchi	Vipanchi
	Anvruddh Shirodkar					

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

Certificate Course on 'Collection, Isolation and Identification of Fungi'

Fungal Isolation and Identification

The Department of Botany will organize a course basically on the isolation and identification of microfungi. The five day course is designed for beginners and those with not much experience in the identification of naturally occurring microfungi. The participants will be given to examine include a wide range of fungi i.e moulds etc. This certificate course will be conducted by Dr. Maria A. D'Souza, is designed to provide tools and skills for beginning, practicing, and prospective identification techniques.

About the workshop

Fungi are amazing, an important source of protein and food and medicinal source, critical for your health and the health of the planet. Nature's decomposers and regenerators they are all important for your permaculture systems your soils and in becoming more self-reliant and sustainable. They can remove pollutants in water and soils, share nutrients between trees and regenerate landscape. A world of their own this species provides us with many secrets as to how they can help us and even save the world. This **five-day workshop** is designed to introduce participants to a basic understanding of microfungi such as moulds that may occur in foods and in processing environments. The workshop will also provide you with the knowledge, skills and confidence in the fungal isolation/identification. During this workshop we will explore different habitats of microfungi. The focus will be on simple isolation and identification techniques with many hands-on activities to support the in-class theory. This will be a fun packed informative hands-on practical exercise totally consuming your hearts, minds and hands with microfungi. You will get the ability, resources and confidence when you go home.

Course Outline

The course will cover:

- General introduction to fungal structure, growth and classification
- Processing samples for fungal culture, Microscopic examination, evaluation of fungal growth media, methods for presumptive and full identification of fungal isolates, recording and interpretation of results.

This course is delivered over 05 days and is designed to provide participants with an introduction to laboratory investigation of microfungi and is also useful for those wishing to update their practical skills and knowledge. Information will be delivered in a combination of lectures and practical sessions. The three day course has been specially developed for aspiring young students and for lovers of fungi those who want to know more about these organisms. The goal of the certificate program is for the participants to be able to isolate and identify the microfungi from varied habitats. This process begins with a brief introduction to fungi and proceeds through naturally occurring fungi with special reference to a number of habitats. The most common fungal species will be emphasized throughout the lecture until they become familiar. The less common spores will be treated by introducing references from mycological literature.
The first step in this process is the recognition of the major groups within the fungus kingdom by their spores, basidiospores, ascospores and mitospores (molds). There will be detailed explanations of the isolation and identification of fungi followed by the laboratory exercise. Equipment in the lab includes professional microscopes with oil immersion, stereoscope, camera

attachment to the microscope, laminar airflow etc. At the conclusion of the course, the attendees should be able to isolate and identify, take an account, write a report.

Day 1:

- Lecture on Microscope basics, fungal classification, differences between each of the 5 groups ie. Chytridiomycetes, Zygomycetes, Glomerulomycetes, Ascomycetes, Basidiomycetes, Deuteromycetes, their reproductive structures, diferent modes of fungal nutrition, fungal isolation, fungal ecology, basic fungus morphology and growth.
- Laboratory session on basics of microbiology i.e. autoclaving, preparation of media and sterilization.

Day 2:

- Lecture on Ascomycota and basidiomycota reproductive structures i.e. asocarp, basidiocarp, tunica and the different arrangements of asci and basidia.
- Laboratory exercise on technique in preparation of petriplates with media for fungal isolation.
- To isolate fungi from natural substrates, stain with lactophenol cotton blue and observation on microscope.
- Processing samples for endophytic fungi from fresh leaves.

Day 3:

- Lecture on coprophilous fungi and ascomycetous fungi eg. *Cladosporium, Aspergillus* and *Penicillium*.
- Preparation of slides and cultures of various coprophilous fungi and isolation of endophytic fungi.

Day 4:

- Lecture on brief introduction on Anamorphic fungi.
- Laboratory exercise on isolation and observation of the fungal petriplates and checked for contamination if any.
- Exercise on making and interpreting reports.

Day 5:

- Laboratory exercise on floras, manuals, identification keys for fungal identification.
- Decontamination of the cultures plates and slants prepared.

At the end of the three day exercise the students will learn techniques for fungal collection, isolation and identification.

Course Details

Dates and times – October 2016 (Exact dates will be informed later)
Day 1 10.00am - 13.00pm
Day 2 10.00am – 13.00pm
Day 3 10.00am – 13.00pm
Day 4 10.00am – 13.00pm
Day 5 10.00am – 13.00pm
Cost : Total - Rs. 1000/-Student

MDSouza

Convener
Dr. Maria A. D'Souza