



**DEMPO CHARITIES TRUST**  
**Dhempe college of Arts and Science,**  
**Miramar-Panaji- Goa**

**SKILL DEVELOPMENT COURSES CELL**  
**2022-2023**

**Report**

The Skill Development Courses cell of Dhempe College conducts various courses to impart added knowledge of a subject besides the academic syllabus which can be useful to the student in the future.

In this academic year 10 Skill Development Courses were conducted for the benefit of the students of our college. These courses will give an impetus for the forthcoming NEP implementation from the academic year 2023-24.

Sr. No.	Course Name	Department	No. of Students
1	Mental Health of Deaf & Blind Individuals: Training & Interventions	Psychology	40
2	Determination of Physico Chemical and Microbiological Parameters in drinking Water	Chemistry	18
3	Basics in Python Programming	Computer Science	19
4	Design, Implementation & Testing of Electrical and Electronic Circuits	Physics	09
5	Introduction to Translation	English	21

6	Fundamentals of GIS	Geology	10
7	Orchid, Anthurium Cultivation, Flower Arrangement, Creative Kitchen & Vertical Gardening	Botany	23
8	Intertwining Ethics and Religion: Sacred Groves of Goa	Philosophy	18
9	Spoken Tutorials by IIT Bombay	Computer Science	65
10	Latex : The Mathematical Typesetting Software	Mathematics	09
11	Fungi as food, bio fertilisers and biocontrol agents	Botany	09



**DCT'S  
DHEMPE COLLEGE OF ARTS AND SCIENCE  
MIRAMAR PANAJI GOA  
2022-2023**

#### REPORT

#### VALUE ADDED COURSE

#### DEPARTMENT OF PSYCHOLOGY

#### CERTIFICATE COURSE ON "MENTAL HEALTH AMONG DEAF & BLIND INDIVIDUALS: TRAINING & INTERVENTIONS"

The department of Psychology organized a certificate course titled "Mental Health among Deaf & Blind Individuals: Training & Interventions" of 30 hours for the academic year 2022 - 23 from 29-09-2022 to 14-04-2023. The total number of students registered for the same were 40 from FY BA, SY BA and TY BA from our college. The resource person for the same was Mr. Gabel Mascarenhas, project coordinator at Caritas centre, Saligao - Goa. The coordinator of the certificate course was Ms. Sweta Shyam Matonkar, Assistant Professor from the department of Psychology. The certificate course highlighted upon mental health issues and its dimensions among persons with deafblindness and multiple disabilities along with their family members. The students were motivated to perform and understand concepts of deafblindness, multiple disabilities, and mental health. The students actively participated during the sessions, in activities conducted individually and in groups, and also performed in various tasks assigned to them. The students also were part of learning the basics of American Sign Language and Braille in order to effectively communicate with persons with deafblindness. During the course, the students were taught about mental health, common issues that raise mental health concerns among family members, the dimensions of mental health, and the intervention strategies. Apart from the theory aspect, the students also visited the homes of children and young adults with deafblindness and multiple disabilities in order to attain exposure by working on the intervention related to improving their mental health.

(Ms. Sweta Matonkar)  
Co-ordinator

(Ms. Varsha Virginkar)  
Convener SDCC

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**Report- Department of Chemistry.**

The department of chemistry conducted a long term integrated (faculty of Chemistry and Bio-technology) value added non-conventional course entitled "Determination of physicochemical and microbiological parameters in drinking waters" for SY BSC students.

Duration of the course is of 30 hours which comprises of 4 sessions of lectures of one hour each and 26 hours of practical sessions. The intake capacity for the course is 25 students with a fee of Rs 1000/- per student. This year 18 students enrolled for the course.

The course syllabus includes introduction to microbiological and physico- chemical parameters of drinking water, in addition there are practical sessions of determination of microbiological as well as physical and chemical parameters of drinking waters. Course objective is to equip students with practical knowledge of determination of water quality to qualify whether water is hygienically safe and fit for consumption.

The students performed practical sessions in Chemistry Laboratory for analysis of physical and chemical parameters of drinking waters from 6th to the 8<sup>th</sup> of December 2022.

The course commenced on 19<sup>th</sup> may in the Bio-Technology Laboratory for analysis of water samples for micobiological parameters and ended on 22<sup>nd</sup> may 2023.

  
Course Co-ordinator

( Mrs Varsha Virginkar)





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**Miramar-Goa**

**Department of Computer Science**

Skill Development Course

Academic year : 2022-23

**Report**

**"Basics in Python Programming"**

The Department of Computer Science organized course on "Basics in Python Programming" from the 9<sup>th</sup> August 2022 to the 10<sup>th</sup> December 2022. The resource person for the course was Mrs. Arati P. Kadam and Mr. Senon De Souza. 12 F.Y.B. Sc and 7 F.Y.B.A students attended the course.

The course objective is to introduce programming concepts using python. This is an easy language to learn and used for development of various applications.

The topics covered are Python interpreters, python shell, Data types, files and exceptions.

No. of students: 19

Fees: Rs.500/-

Resource Person: Mrs. Arati Kadam and Mr. Senon De Souza

Co-ordinator: Mrs. Annie Rajan

Duration: (Dates) From 09/8/2022 to 10/12/2022 (40 contact hours)

*Annie Rajan*

HOD  
Department of Computer Science

*[Signature]*





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Panaji, Goa**

**Department of Physics**

**Report of the Skill Development Course on 'Design, Implementation and Testing of Electrical and Electronic Circuits' for the academic year 2022-23**

The Department of Physics conducted a 15-day skill development course on 'Design, Implementation and Testing of Electrical and Electronic Circuits' from 23<sup>rd</sup> January 2023 to 3<sup>rd</sup> March 2023.

The duration of the course was 30 hours which comprised of 2 lecture sessions of 2 hours each and 26 hours of hands-on training. The intake capacity was 20 students with a fee of Rs. 1000/- per student. This year 9 students from FYBSc & SYBSc had enrolled for the course.

The course included an introductory session topics like testing of components, working and use of cathode ray oscilloscope and signal generator, circuit construction using breadboard, Veroboard and PCB designing.

The main objective of the course was to make the student familiar with the basics of circuit designing and to utilize this knowledge for personal and professional growth. The course was coordinated by Ms. Siddhi Parsekar.



*Siddhi Parsekar*

*Siddhi Parsekar*

**DCT's Dhempe College of Arts and Science, Miramar, Panaji**

**Department of English**

**Skill Development Course in Introduction to Translation**

**Report**

The Department of English in association with the Digital Language Laboratory and Skill Development Centre offered a 30-hour Skill Development Course on Introduction to Translation from February 17, 2023 to June 15, 2023 during the academic year 2022-2023. The Course was held in hybrid mode (online and offline). 21 students enrolled for this course.

The resource persons and the major topics covered under this course were:

Sr. No	Topic	Resource Person
1	An overview of translation studies: Function and Purpose in Contemporary Times	Dr. Akshata Bhat, Assistant Professor, DCT's Dhempe College of Arts and Science, Miramar.
2	Translating News for Radio Broadcast and Introduction to web tools in translation.	Dr. Tanvi Bambolkar, Assistant Professor, Government College of Arts, Science, and Commerce, Kepem.
3	Technical and Creative translation and Terminology Creation	Dr. Palia Pandit, Assistant Professor, DCT's Dhempe College of Arts and Science, Miramar.
4	Introduction to Media Localisation- Subtitling and Captioning	Ms. Karma Puri, Quality Control Head, English Localisation, Atom Ant Studios, Mumbai and Ms. Abhishri Shetty, Quality Control Manager, Zee Studios, Jaipur

  
Dr. Palia Pandit  
Course Coordinator



### Fundamentals of GIS report 2022-23

The department of Geology, Dhempe College of Arts and Science, Miramar conducted a skill development certificate course titled *Fundamentals of GIS* of 30 hour duration. The course was conducted for the academic year 2022-23 for which 10 students had enrolled and attended the course.

The course started on 23<sup>rd</sup> March 2023 and ended on 15<sup>th</sup> April 2023. The lectures and practical's were conducted in the department by Mr. Aliston D'Souza.

The students were taught how to download, collect, and process Geographic data using GIS software. They also learned how to draft maps using the software. The course was conducted through a combination of lecture and practical sessions. The attendance record of the above said course has been maintained in the department.

*D. S. Parab*  
*25/05/2023.*  
D. S. Parab.





**DCT's**  
**Dhempe College of Arts and Science Miramar Goa**  
Report for skill development course

1. **Course Title:** "Orchid, Anthuriums cultivation, flower arrangement, creative, kitchen and vertical gardening"
2. **Date:** 23<sup>rd</sup> March to 16<sup>th</sup> May 2023
3. **Name of the college:** DCT's Dhempe College of Arts and Science, Miramar, Panaji Goa
4. **Course Coordinator:** Dr. Shilpa Bhonsle
5. **Number of participants:** 23

Shilpa Bhonsle conducted a certificate course on *Orchid, Anthuriums* cultivation, flower arrangement, creative, kitchen and vertical gardening for 30 hours for 12 days at the Department of Botany, Dhempe college of Arts and Science from 25.03.23 to 16.05.23.

Total 23 students participated in the course from F.Y. BSc. and S.Y. BSc.. An amount of Rs. 500/- per student was charged. The topic which was covered were creative gardening, kitchen gardening, flower arrangement, *Anthuriums* planting, *Orchid* cultivation and vertical gardening.

On 23 March 2023, we started the course with a topic of fundamentals of gardening and the last date was on 16<sup>th</sup> May 2023.

The topics covered were as follows

Sr. No.	Topics	Date	Timing/ Hours	Lecture / practical
1	Fundamentals of gardening	25.03.23	3.00- 4.00 pm (1)	Online Lecture
2	Fundamentals of gardening	25.03.23	3.00- 5.00 pm (2)	Demonstration/ Practical work in college
3	Creative gardening	01.04.23	3.00- 4.00 pm (1)	Lecture
4	Kitchen gardening.	05.04.23	3.00- 4.00 pm (1)	Lecture
5	Kitchen gardening	05.04.23	3.00- 6.00 pm (3)	Demonstration/ Practical work/ field trip / Home assignment
6	Composting/ organic manure	08.04.23	2.00- 3.00 pm (1)	Lecture
7	Creative gardening, <i>Anthurium</i> and <i>Orchid</i>	10.04.23	8.00- 6.00 pm (10)	Field trip to ICAR and Mayem Gaushala

*Shilpa Bhonsle*  
(Course Coordinator)

*Shilpa Bhonsle*




	cultivation, Vertical gardening and flower arrangement, Composting/ organic manure			
8	<i>Anthurium</i> and <i>Orchid</i> cultivation,	11.05.23	3.00- 4.00 pm (1)	Lecture
9	Vertical gardening and flower arrangement	12.05.23	3.00- 4.00 pm (1)	Lecture
10	<i>Anthurium</i> cultivation	13.05.23	2.00- 5.00 pm (3)	Demonstration/ Practical work/ field trip
11	<i>Orchid</i> cultivation	15.05.23	2.00- 5.00 pm (3)	Demonstration/ Practical work/ field trip
12	Composting/ organic manure	16.05.23	2.00- 5.00 pm (3)	Demonstration/ Practical work/ field trip
13	Test/ assignment /feedback		—	—
	TOTAL		30 HOURS	

Faculty for the certificate course were: 2) Ms. Rahmita Mahaldar 2) Dr. Shilpa Bhonsle. Hands on training were given to the students.

*Orchids* and *Anthurium* beautiful cut flowers cultivated mostly in tropical humid climate and hence it has good scope for cultivation in Goa on commercial level, training was given to the students for cultivation of this plants.



Flower arrangement were done, which included the organization of design and colour towards creating an ambience using flowers, foliage and other floral accessories.

(Course coordinator) 



Vertical gardening is garden that grows upward (vertically) using a trellis or other support system, rather than on the ground (horizontally). The vertical garden was created and maintained.

Creative gardening was done using all the waste from houses and used in an innovative way of growing and cultivating plants as part of horticulture in innovative way. Kitchen garden was demonstrated in ICAR campus to the students for cultivating vegetables.



This certificate course offered hands-on practical training programs on different techniques in gardening and also field visit gave an idea to students to how practically we can do.



Field visit to ICAR and Mayem Gaushala

*Handwritten signature*  
course coordinator

*Handwritten signature*

This will give the impetus for the students to get a better job opportunity, set up their own farm and particular in segment of interest to develop their career. Certificate will be distributed to the participants who attended the course.



Signature  
Dr. Shilpa Bhonsle

**REPORT OF SKILL DEVELOPMENT COURSE 2022 -2023**  
**Department of Philosophy**  
**'Intertwining Ethics and Religion: Sacred Groves of Goa'**

Skill Development Course titled 'Intertwining Ethics and Religion: Sacred Groves of Goa' was organized on 25th March 2023, at Dharmapada College of Arts and Science Miramar Goa by The Department of Philosophy, Dharmapada College of Arts and Science, Ms Sendra Florencia Pereira was the Coordinator of the Course. The Resource Person for the course was Ms. Amreen Shaikh who guided the students throughout the course. A session by Venita Gomes was also conducted. 18 Students Successfully completed the Course.

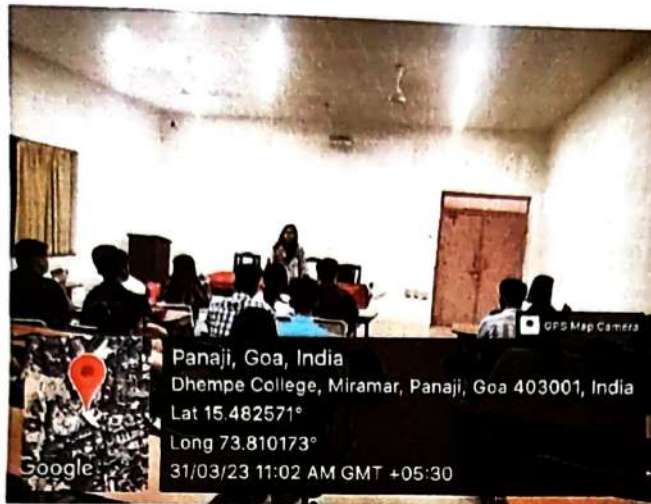
This course focused on teaching students the significance of ethics and religion in the protection of Sacred Groves. The students were taught about various Sacred Groves that are present all over the state of Goa, and how they have been worshiped for hundreds of years. They were also made aware about the destruction of the Groves during recent times, and students were encouraged to come up with feasible solutions for the same. The documentary film 'Guardian spirits of Goa' was also screened for the students which introduced students to various Goan heritage practices and worship of protector spirits.

The course ended with a day-long field trip to various locations and students were taken to a number of Sacred Groves and temples of nature deities. The first stop was in Saligao, where the students visited the temple of Goddess Shrivani. This temple worships an anthill and educates us about the importance of nature in today's world. The next stop was in Revora. Here, the students were taught about the working of the sluice gates, and then they proceeded to visit the temple of Lord Manaseshwar, the local deity who protects the "Manas" and the sluice gates. The last stop was in Ibrampur, where the students had to trek and reach the sacred grove. They got to see the worship of Lord Paikadev here, the deity who protected travellers who took this route, and their horses in the olden days.

The aim of this course was to give students not only theoretical knowledge, but also take them out there in the wilderness and give them practical knowledge about the Sacred Groves, and how they need to be protected. The students were keen on learning more and participated in discussions and activities with utmost interest.







*'Venita Gomes addressing students'*



*'student interaction session'*

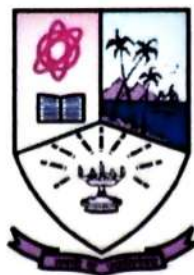


*'worship of Lord Paikadev'*

Cause Coordinator  
Ms. Sandra Peres  
Silveson.

*Sandra*





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Miramar, Panaji-Goa**


**Report of Spoken Tutorial programme by IIT Bombay  
2022-23**

The Spoken Tutorial Programme is designed and developed by IIT Bombay and are conducted in the College in collaboration with IIT Bombay. The College has been associated with the Spoken Tutorial Programme since 2013 and has been recognised as Two Star RESOURCE Centre for conducting Spoken Tutorial Programme.

The following Spoken Tutorial Programmes were conducted in the College in collaboration with IIT Bombay during the period 2022-23.

Sr No	Class	Software Course	Number of students
1.	FYBSc Computer Science	C and CPP	12
2	SYBSc Computer Science	C and CPP	18
3	SYBSc Comp Science	Python	18
4	SYBSc Maths and FYBSc Maths	Introduction to GeoGebra	13 + 4 = 17
Total			65

The students successfully participated in the program and soft certificates were shared with them.

  
Ms Shilpa Nark  
Incharge  
Spoken Tutorial Programme

**Report of the value added course in 'LATEX' by the Maths  
Dept. for the Academic Year 2021-22**

**Course Title: Mathematical Typesetting LaTeX**


**Department: Mathematics**

The Department of Mathematics conducted a Skilled development course in 'Latex – Mathematical Typesetting' for the TYBSc (Mathematics) students of the college from 5/12/2022 to 3/4/2023. The resource persons for the course was the faculty of Mathematics Department of the College Mr. Vitendra Mhatonkar.

The course was of 30 hours duration and was attended by 09 TYBSc. Mathematics students. The course was coordinated by Mr Vitendra Mhatonkar . The students were introduced the basics of how LaTeX works, how to install Latex and Tex editor TeXstudio, they were explained how to get started, and go through lots of examples.

This course will be helpful for students, manuscripts, maths papers in LaTeX. The students are now able to successfully install LaTeX and its related components on a home/personal computer, use LaTeX and various templates acquired from the course to compose Mathematical documents and reports.

The students successfully typed their TYBSC Projects in Latex.

  
C. Vitendra Mhatonkar  
Course Co-ordinator.

Mu  
5/12/23  
I/c Dept of Mathematics





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Panaji, Goa

### Skill development course report

**Course Title:** Fungi as food, biofertilizers and bio-control agents

**Period:** 08/05/2023 and 13/05/2023 and 17/05/2023

**Venue:** Department of Botany, Dhempe College of Arts and Science, Miramar, Panaji, Goa

**Course Co-ordinator:** Dr. Pratibha Prabhugaonkar

**Number of Beneficiaries:** 09 students (Eight students from Dhempe College of Arts and Science, from B.A. and B.Sc. courses and 01 student from St. Xavier's College, Mapusa Goa)

#### Report:

Mycology or study of fungi is branch of science touching every sphere of life, from food, medicine, farming etc. Being to deal with micro-organisms the field requires understanding of basic skills in sterilization, media preparation, culturing of fungi and safety practices. Field of study also requires knowledge of different morphological features of fungi and use of microscopy to observe them. This course aimed to equip participants with this required knowledge so that participants can take up further work in this field. Further to demonstrate the utility of this course, techniques related to two fungal foods namely mushroom cultivation and tempeh cultivation were demonstrated to the participants. During the course we also discussed how fungi can be used as biofertilizers and bio-control agents.

Course formally started in Botany Department of Dhempe College of Arts and Science on 8<sup>th</sup> May 2023. On 8<sup>th</sup> May participants were welcomed for opting to the course and were given an introductory lecture on- Fungal world touching every sphere of our life.

After the lecture students performed hands on to acquire laboratory skills required for working with fungi. The first day was reserved for media preparation and sterilization skills. In this participants cleaned the glassware's required for the work, prepared media 'malt extract agar' and sterilized it by autoclaving. Participants also prepared moist chambers for growing fungi and incubated samples collected during campus visits. Other samples which were planned to be observed during the course work were also prepared. They also prepared the substrate (cutting into small pieces and soaking in water overnight) for mushroom cultivation.



On 9<sup>th</sup> May 2023 students began with introduction to laminar air flow and its principle. This was followed by preparation of substrate required for the preparation of oyster and milky white mushroom spawn. Participants also started with mushroom cultivation by inoculating the spawn of oyster and milky white mushroom into bags. This was followed by demonstration of oyster mushroom cultivation using paddy straw as substrate wherein students understood intricacies like optimum moisture content in sterilized paddy straw, spawn handling and requirement of aseptic conditions.

On 10/05/2023 students dispensed the culture medium prepared previous day into the Petri-plates. This was followed by lecture on microbial laboratory techniques by Dr. Purnima Ghadi and a lecture on importance and preparation of Tempeh by Dr. Ashish Prabhugaonkar. Participants also prepared tempeh using soybean as substrate by growing the mould *Rhizopus* from starter culture.

On 11<sup>th</sup> May 2023, students used media petri-plates prepared by them to sample fungi from different habitats. To expose them to diversity and sampling methods for different habitats techniques to isolate fungi growing as endophytes, from plant litter, soil, aero-mycoflora and single spore isolation on malt extract media were demonstrated and were practiced by participants. This equipped participants with skills to work with these micro-organisms.

On 12/05/2023 participants isolated Arbuscular Mycorrhizal spores from soil sample. And learnt how to multiply these AM spores in large scale. This was followed by demonstration on Mycorrhizae as biofertilizer and *Beuveria* as biocontrol agents by Dr. Ashish Prabhugaonkar. Students also learnt how to prepare slants for sub-culturing and storing the pure fungal cultures.

On 13/05/2023 participants observed the fungi growing in Petri-plates they used for sampling. Prepared slide mounts and observed different morphological structures of fungi. They further used taxonomic manuals to identify fungi isolated and to understand cultural characteristics of different groups of fungi. They also learnt methods of preparation of pure cultures and long term storage. This was followed by feedback session from students and distribution of certificates from the hands of our respected principle, Prof. Vrinda Borker.

On the last day i.e. on 17<sup>th</sup> May 2023, participants visited Dr. Kurade's mushroom farm, Bhatpal to observe the cultivation of button mushroom at a larger commercial scale and they also visited Cotigao wild life Sanctuary, Canacona Goa and observed natural habitat for fungal diversity.







Students working in the laboratory



Oyster mushrooms cultivated by students



Visit to Dr. Kurade's mushroom farm



Field visit to Cotigao wild life sanctuary



Certificate distribution

**Course Outcomes :** Participants were trained in basic skills required to work in mycology such as sterilization, aseptic handling, culturing of fungi, fungal morphology and were also learnt the techniques of growing mushrooms like oyster and milky white mushroom and tempeh and isolation and mass multiplication of Arbuscular mycorrhizal spores.

*Pratibha*

Dr. Pratibha Prabhugaonkar  
Course Co-ordinator



Milky white mushrooms (*Calocybe indica*) cultivated by students

*Pratibha*  
Principal  
Dharmpe College of Arts & Science

*Pratibha*  
Convenor  
Skill Development Courses Cell  
Convenor  
Skill Development Courses Cell