

## ***MICROBIOLOGY Departmental Report (2019-2020)***

### **Preliminary information**

#### **I Department profile**

<b>Names</b>	<b>Designation</b>
Dr. Arjumanara Surti	Associate Professor, Head of Department
Dr. Gianni Erevelles Mapara	Associate Professor
Ms Suparna Dugal	Associate Professor
Dr. Rajbinder Kaur Dehiya	Associate Professor
Ms. Shraddha Prabhu	Assistant Professor
Ms Jyoti Mantri	Associate Professor
Mr. Vijay Vig	Assistant Professor
Ms. Ruqsana Khan	Assistant Lecturer (Ad-hoc)

#### **II Courses/Papers taught**

##### **SEMESTER I -**

<b>Course code</b>	<b>Name of Unit</b>	<b>Credits</b>
SBSMCB101	FUNDAMENTALS OF MICROBIOLOGY	2 Credits
SBSMCB102	BASIC TECHNIQUES IN MICROBIOLOGY	2 Credits
SBSMCBP1	PRACTICALS	2 Credits

**SEMESTER II**

Course code	Name of Unit	Credits
SBSMCB201	EXPLORING MICROBIOLOGY	2 Credits
SBSMCB202	ADVANCED AND APPLIED MICROBIOLOGY	2 Credits
SBSMCBP2	PRACTICALS	2 Credits

**SEMESTER III**

Course Code	Name of the Unit	Credits
SBSMCB301	MICROBIAL DIVERSITY, MICROBIAL TAXONOMY & INSTRUMENTATION	2
SBSMCB302	ENVIRONMENTAL MICROBIOLOGY	2
SBSMCB303	INTRODUCTION TO MICROBIAL METABOLISM AND BIostatISTICS	2
SBSMCBP3	PRACTICALS	3

**SEMESTER IV**

Course Code	Name of the Unit	Credits
SBSMCB401	MEDICAL MICROBIOLOGY & IMMUNOLOGY	2
SBSMCB402	APPLIED MICROBIOLOGY	2
SBSMCB403	BASICS IN GENETICS AND MOLECULAR BIOLOGY	2
SBSMCBP4	PRACTICALS	3

**SEMESTER V**

Course code	Name of the Unit	Credits
SBSMCB501	MICROBIAL GENETICS	2.5
SBSMCB502	MEDICAL MICROBIOLOGY AND IMMUNOLOGY: PART-I	2.5
SBSMCB503	MICROBIAL BIOCHEMISTRY: PART-I	2.5
SBSMCB504	BIOPROCESS TECHNOLOGY: PART-I	2.5
SBSMCBP5	PRACTICALS	06

Course code	Name of Unit	Credits
SBSAPC503	FOOD PRODUCTION AND PROCESSING (General Principles)	2 Credits
SBSAPCP503	PRACTICALS	2 Credits

## SEMESTER VI

Course code	Name of the Unit	Credits
SBSMCB601	rDNA TECHNOLOGY, BIOINFORMATICS & VIROLOGY	2.5
SBSMCB602	MEDICAL MICROBIOLOGY AND IMMUNOLOGY: PART-II	2.5
SBSMCB603	MICROBIAL BIOCHEMISTRY: PART-II	2.5
SBSMCB604	BIOPROCESS TECHNOLOGY: PART II	2.5
SBSMCBP6	PRACTICALS	06

Course code	Name of Unit	Credits
SBSAPC603	FOOD PRODUCTION AND PROCESSING (APPLICATIONS AND Q.A)	2 Credits
SBSAPCP603	PRACTICALS	2 Credits

POST GRADUATE:

**SEMESTER I**

Course code	Name of the Unit	Credits
SMSMCB101	CELL BIOLOGY AND VIROLOGY	4
SMSMCB102	MICROBIAL GENETICS	4
SMSMCB103	MICROBIAL BIOCHEMISTRY	4
SMSMCB104	MEDICAL MICROBIOLOGY & IMMUNOLOGY	4
SMSMCBP1	PRACTICALS	
SMSMCBP101	CELL BIOLOGY AND VIROLOGY	2
SMSMCBP102	MICROBIAL GENETICS	2
SMSMCBP103	MICROBIAL BIOCHEMISTRY	2
SMSMCBP104	MEDICAL MICROBIOLOGY & IMMUNOLOGY	2

**SEMESTER II**

Course code	Name of the Unit	Credits
SMSMCB201	CELL BIOLOGY AND VIROLOGY	4
SMSMCB202	MICROBIAL GENETICS	4
SMSMCB203	MICROBIAL BIOCHEMISTRY	4
SMSMCB204	MEDICAL MICROBIOLOGY & IMMUNOLOGY	4
SMSMCBP2	PRACTICALS	
SMSMCBP201	CELL BIOLOGY AND VIROLOGY	2
SMSMCBP202	MICROBIAL GENETICS	2
SMSMCBP203	MICROBIAL BIOCHEMISTRY	2
SMSMCBP204	MEDICAL MICROBIOLOGY & IMMUNOLOGY	2

**SEMESTER III**

Course code	Name of the Unit	Credits
SMSMCB301	TOOLS AND TECHNIQUES: RESEARCH METHODOLOGY	4
SMSMCB302	FOOD MICROBIOLOGY	4
SMSMCB303	ADVANCES IN BIOTECHNOLOGY	4
SMSMCB304	APPLIED AND ENVIRONMENTAL MICROBIOLOGY	4
SMSMCBP3	PRACTICALS	
SMSMCBP301	Literature Survey and Research project proposal	2
SMSMCBP302	Food Microbiology	2
SMSMCBP303	Advances in Biotechnology	2
SMSMCBP304	Applied and Environmental Microbiology	2

**SEMESTER IV**

Course code	Name of the Unit	Credits
SMSMCB401	TOOLS AND TECHNIQUES: BIOMOLECULAR ANALYSIS	4
SMSMCB402	PHARMACEUTICAL MICROBIOLOGY	4
SMSMCB403	ADVANCES IN BIOTECHNOLOGY	4
SMSMCB404	APPLIED AND ENVIRONMENTAL MONITORING & MANAGEMENT	4
SMSMCBP4	PRACTICALS	
SMSMCBP401	Dissertation based on Research Project and poster presentation	2
SMSMCBP402	Pharmaceutical Microbiology	2
SMSMCBP403	Advances in Biotechnology	2
SMSMCBP404	Applied And Environmental Monitoring & Management	2

### **III BOS composition**

Dr. Arjumanara Surti - Chairperson, Board of Studies and Head of the Department

Ms Miriam Stewart- Vice-Chancellor's nominee (Associate Professor and Head of Department of Microbiology, St. Xavier's College)

Dr. Jyoti Kode - Subject expert from outside the Parent University (Scientific Officer F, ACTREC, Kharghar, Navi Mumbai)

Dr. Annamma Odaneth - Subject expert from outside the Parent University (Associate Professor, DBT-ICT Centre for Energy Biosciences, Institute of Chemical Technology, Mumbai)

Mr. Sivan K- Representative from industry (Deputy General Manager , RIS Healthcare Technologies Private Limited, Mumbai )

Ms Nidhi Tomar- Postgraduate alumna (Ennature Biopharma, India Glycols Limited, Mumbai)

- Other Members of Faculty

Dr. Gianni Erevelles Mapara

Ms Suparna Dugal

Dr. Rajbinder Kaur Dehiya

Ms Shraddha Prabhu

Ms Jyoti Mantri

Mr. Vijay Vig

Ms. Ruqsana Khan

### **IV Dates of BOS meetings -10th August 2019**

June 2020

#### **1. Activities Conducted by the department:**

##### **ACTIVITY 1**

##### **Municipal School Visit (Social Outreach Activity)**

Venue - Jagannath Shankar Sheth Municipal School, Grant Road

Date - 10th July 2019 Number of staff members involved – All staff members

Number of students involved - 40

## REPORT

The Microbiology students [MSc- II, SyBSc] and teachers of Sophia College visited Jagannath Shankar Sheth School, Grant Road on 10th July 2019 as a part of the social component. All the students gathered around the school building around 10 am. After which the students and the staff proceeded inside. The very first programme was a skit on the topic of anger management. The topic was selected because in this age of unusual stress and pressure, anger management training is of paramount importance. It teaches you to accept what you can't change and channel your energy to feel positive and calm. It is important for people from all walks of life to control and manage their anger. Anger management is the process of learning how to recognize signs of anger, and taking action to calm down and deal with the situation in a positive way. After the skit the college students had arranged games for them where the school children learned the importance of "Team Building". After which they went for their break. The Microbiology students had arranged a surprise for them where the school children were given sweats and clothes [ that the department had collected through the clothes collection drive]. All the school students had a big smile on their face after the surprise indicating that they were really very happy.



**Fig 1: SyBSc students and teachers**



**Fig 2: MSc students**



**Fig 3: Microbiology students giving a brief to the school children about the purpose of the visit.**



## **ACTIVITY 2**

### **Movie Mission Mangal (Peace Week Activity)**

Date - 23rd August 2019

#### **REPORT**

As a part of imbuing importance of scientific temper amongst women, building a sense of National pride and as a bonding initiative, (during Peace week) students of T.Y.B.SC and F.Y.B.Sc class were taken for the movie



### **ACTIVITY 3**

#### **Industrial Visit to SULA Vineyards and Jai Biotech, Nashik**

Venue - Sula Vineyards and Jai Biotech, Nashik

Date - 27th and 28th August 2019

Number of students involved - 47

### **REPORT**

A two day industrial visit was organized for S.Y.B.Sc., T.Y.B.Sc. and M.Sc-II students to Sula Vineyards and Jai Biotech, Nashik on 27th and 28th August 2019. Students were accompanied by Dr (Ms) Arjumanara Surti, Mr Vijay Vig and Ms. Ruqsana Khan.







## **ACTIVITY 4**

### **Guest lecture on Nanotechnology Applications**

Guest/Speaker – Dr. Deepa Khuslani, TIFR

Date - 30th August 2019

Number of students attended: 100+

### **REPORT**

A talk on Nanotechnology by Deepa Khuslani, Scientist TIFR. Over the last few decades, Nanoscience research has become overwhelming and it is important to understand the chemical and physical fundamental aspects that make nanomaterials truly unique. This talk conveyed some crucial aspects of nanomaterials, starting from (a) basics of the science involved that make these structures so interesting, (b) how to synthesize/fabricate them (c) popular methods of characterising these structures and some common mistakes found in literature regarding such small materials. The speaker also showcased the manner in which these materials can be utilized in advanced applications and as such what is making them so ubiquitous in our daily lives.

## DEPARTMENT OF MICROBIOLOGY

Welcomes you to

A DBT-STAR College Scheme supported talk on



### What Exactly Are Nanomaterials And Why Are They Important?



Speaker: **Prof. Deepa Khushalani**

Materials Chemistry Group  
Department of Chemical Sciences,  
Tata Institute of Fundamental Research (TIFR), Mumbai

- CRSI Bronze Medal in Chemistry 2018
- DST (Nanomission) Young Career Award in Nanoscience and Technology 2016
- Fellow of Royal Society of Chemistry (FRSC)
- Editorial Board Member of Scientific Reports
- Executive Committee Member for RSC West India Section

### ACTIVITY 5

#### PETRI ART

Date - 10th December 2019

#### REPORT

The Department of Microbiology organized “PETRI ART” the Ananya event for the current academic year, which was an interdepartmental competition involving all departments of the biological sciences. Invitations were given to the departments of Life Sciences, Biochemistry and Zoology. All the students were told that the materials needed for petriart such as bacterial cultures and culture media would be provided to them at the time of the competition. Petriart involves using sterile petri dishes with sterile culture medium in them as the canvas. The art work is done using suspensions of different pigmented bacteria in pure culture as the medium of art. The pure cultures are applied to the medium under sterile conditions and incubated to allow

them to grow and produce pigment in the appropriate parts of the petri dish. After incubation at 37°C the cultures would show pigmentation, thus making the desired picture visible. The objective of this activity was to inculcate creative out-of-the-box thinking in the students, while at the same time honing the practical skills involved in this very delicate operation. The date on which Petriart was held was Tuesday, December 10, 2019. The plates were incubated and were ready for judging on Thursday, December 13, 2019. Dr. Madhavi Kaji very kindly consented to act as judge and did a very thorough job of awarding the prizes. It was originally decided that there be three prizes, but Dr. Madhavi felt that there were so many deserving participants that we could perhaps have a fourth prize. The organizers Dr. Rajbinder K. Dehiya and Dr. Gianni Erevelles Mapara were likewise prompted by the quality of the work to give a fifth and sixth prize.

The prize winning works of petriart were as follows:

First prize: A portrait of Louis Pasteur by Safiya Khan

Second prize: The face with blossoms in the hair by Shilpa Binoj

Third prize: The landscape by Jovitta Menachery

Fourth prize: The Taj Mahal by Kajal Rai

Fifth prize: Profile of the girl with flowing hair by Tausif Yahu

Sixth prize: The rose by Shaziya Sayed

It was indeed heartening to see how much thought, learning, enthusiasm and enjoyment went into the process and as a department we felt that the objectives of holding this event were fulfilled.



## **ACTIVITY 6**

### **Field Visit to Hinduja Hospital Diagnostic Centre**

Venue - Hinduja Hospital Diagnostic Centre

Date - 9th January 2020

Number of students involved: 23

#### **REPORT**

Hinduja Hospital Diagnostic Center (Molecular biology, Hematology, Immunology, Microbiology, Clinical biochemistry labs) (23 students and 2 teachers).

Feedback -

<https://docs.google.com/spreadsheets/d/1PGBrVVFdd1b-zv3rvNBZgaMISJ8JYjYlmlbf0rAfU4A/edit?usp=sharing>

## **ACTIVITY 7**

### **Microvaganza**

Date - 10th January 2020

Number of students involved: 28

#### **REPORT**

This event was supported by the DBT Star College Scheme. The aim of this event was to create awareness about the damage being done to the environment due to human activities and the importance of environment conservation. The event had two main competitions, Rangoli Design and Poster Making. The topic for Rangoli Design was "Save the Environment " and the topic for Poster Making "The world after 25 years"



Sr.No	Name	No. of participation	Amount paid
1	Amanpreet Kaur Notay	(Absent)	-
2	Jovitta Joy Menachery	1	50
3	Isha Barve	1	50
4	Priya Kamik	1	50
5	Sristi Pradhan	1	50
6	Madhureema Pandya	1	50
7	Khan Shabnam	1	50
8	Prashanthi Sirisilla	1	50
9	Amanda Taffy	1	50
10	Nidhi Narayanan	1	50
11	Disha Vaidya	1	50
12	Riya Mathew Rodrigues	1	50
13	Aqdas Fatima Shaikh	1	50
14	Shivani Sahay	1	50
15	Asmita khadye	1	50
16	Rida Munshi	1	50
17	Fatima Zarah Arif Chamadiya	1	50
18	Bhavika Bhoir	2	100
19	Sian Pinto	1	50
20	Kashmira Vayeda	1	50
21	Zahabiya Chinikamwala	1	50
22	Annemary Alapatt	1	50
23	Khan Misbah	1	50
24	Ayesha Shaikh	1	50
25	Riya yadav	1	50
26	Shilpa Binoj	(Absent)	-
27	Sumaiya Ansari	2	100
			<b>TOTAL - 1350</b>



# MICROVAGANZA

Date: January 2020

Organized by the Department of Microbiology  
Sophia College (Autonomous)

**DITCH THE PAST- MOVE FORWARD WITH  
RENEWABLES**

## **RANGOLI DESIGN**

Venue: MPH, Sophia  
College

Time:

Topic: Save The  
Environment

*Give art to the waste  
around you*

### Description

- Rangoli Design must include an environmental message by using waste materials.
- The waste materials should be carefully chosen and should not stink or clutter.

## **POSTER MAKING**

Venue: Micro, Sophia  
College

Time:

Topic: The World in 25  
Years

*Paint your imagination*

### Description

- Bring out your imagination and show your perspective of the world after 25 years.

## **ACTIVITY 8**

### **Educational Visit to Science centre**

Venue - Science Centre, Mumbai

Date - 18th January 2020

Number of students involved: 25

### **REPORT**

Students of the FYBSC class along with two teachers visited the Science centre and travelling exhibition about antibiotic resistant bacteria



## ACTIVITY 9

### Mini-Symposium on Current Challenges on Cervical and Breast Cancers: Facts and Fiction

Venue -Sophia College for Women (Autonomous)

Date - 4th February 2020

Number of students involved: Approximately 130

Name of the activity coordinator – Dr. Arjumanara Surti

Organized by Cancer Patients Aid Association and Department of Microbiology

Sponsored by LIC of India, Rs 50,000/-

**Breast & Cervical cancer → Facts & Fiction**

- > Indian females →
- > Breast Cancer Most Common Cancer – 162,000 New Cases Annually
- > Cervical Cancer Second Most Common Cancer - 96,922 new cases Annually
- > High Mortality in both cancers

BREAST CANCER → EARLY DIAGNOSIS: >90% CURE	CERVICAL CANCER PREVENTION
<ul style="list-style-type: none"><li>→ Awareness</li><li>→ Early Detection:<ul style="list-style-type: none"><li>• Breast Self Examination Every month 21 yr onward</li><li>• Clinical Breast Examination 40 yr onwards</li><li>• Mammography 45 yrs and above</li></ul></li></ul>	<ul style="list-style-type: none"><li>→ Awareness</li><li>→ Early Detection: Systematic &amp; Organised Screening for HPV (Females 25 yr and above)</li><li>→ HPV Vaccination Girls 9 to 14 yr; Women 15 to 45 yr</li></ul>

**Cervical Cancer Vaccination Primary Prevention**

- > HPV Vaccines Approved in more than 100 Countries
  - > Cervarix, GSK; Gardasil, MSD
- > Efficacious: 250 million doses administered globally
  - > Safe: No Major Adverse Events reported

www.cancer.org.in

50th CFAA CANCER PATIENTS AID ASSOCIATION

## **ACTIVITY 10**

### **Solidarity Student Exchange Programme (Sophia College- Kohima Science College Nagaland) - Student Exchange Program**

Venue- Sophia College for Women (Autonomous), and Kohima Science College Nagaland

Date -September 2019 and 9th to 16th February 2020

Number of students involved: 8 +8

## **REPORT**

The Solidarity Student Exchange Programme (SSEP) 2019-20

The programme, an initiative of two organisations, the Indian National Fellowship Centre (INFC), Mumbai, and the Dr. K & T Kreditsu Foundation, aims to facilitate the strengthening of cultural ties between the students of government colleges in Nagaland with colleges affiliated to University of Mumbai, through exchange programmes. This year, Sophia College for Women (Autonomous) jointly organised the SSEP with the Dr. K & T Kreditsu Foundation, Kohima, Nagaland. The programme provided students with opportunities to experience the culture of the partner state as well as the academic environment of the host colleges through a range of activities. The programme consisted of two phases. As part of the first phase, eight women students from Kohima Science College, Nagaland, visited Mumbai between September 8 and 15, 2019. During the second phase, eight students from Sophia College visited Kohima between February 9 and 16, 2020. During the course of their stay at Sophia College, the students of Kohima Science College got an opportunity to experience the academic environment of the institution through visits to the various science and computer laboratories as well as the library. They also got a taste of Kaleidoscope, the popular intercollegiate youth festival organised by the students of the college. The itinerary, charted for the students from Kohima, included visits to Mani Bhavan, Keshav Shristi, the organic farming centre at Uttan, Global Vipassana Pagoda, Nehru Science Centre and Planetarium, and various tourist sites in Mumbai. A day spent at Dr. Arnab Bhattacharya's laboratory at Tata Institute of Fundamental Research (TIFR) made a lasting impression on the minds of the students. A session by Delnaz Paliwalla, CEO of the Bombay Community Public Trust threw insight into the successful running of an NGO. Interactive sessions with Ms Pooja Kamath, representative of INFC and Mr Ningsang Jamir, ex-student of Kohima Science College currently working as a media marketer in Mumbai were also arranged. The visit of the students was well-timed as it coincided with a peak in cultural activities in Mumbai on account of Ganeshotsav. They experienced the local Maharashtra as well as cosmopolitan culture through home visits. Dressed in traditional costumes, the visiting students performed traditional Naga folk songs and dance at a cultural programme organised at

Sophia College. The students of Sophia College were accompanied by two staff members during their visit to Nagaland in February 2020. The itinerary for their trip included visits to the various educational and research facilities at Kohima Science College, a glimpse of the culture and traditions of the Naga people through visits to Kigwema, Kisama and Khonoma villages as well as Viswema Government Middle School. At the school, the girls met the Head teacher, Ms Keneisenu Vitsu and also got to try out organic farming on the fields within the school premises, where the school children grow vegetables for their meals. The students learnt about groups in Nagaland who are deeply concerned with providing livelihood opportunities to the small-scale agricultural and traditional handicrafts workers. The programme also included interactive sessions with Mr Neichute Duolo, the CEO of Entrepreneurs Associates, and his team. This organisation works for the upliftment of Naga people by providing them with sustainable employment opportunities and support. The sessions with Mr Lichan Humtsoe, the CEO of Été Coffee, and Mrs Hekani Jakhalu, the Founder of Youthnet, were insightful. The Sophia team also visited the Pulie Badze base camp, the state-of-the-art research facility at the Directorate of IT and Science, the Kohima War Cemetery, and the State Museum at Kohima. The students had an interesting interaction with Mr Theja Meru, advisor, Task Force for Music and Arts, Nagaland, at the Regional Centre for Excellence in Music and Performing Arts (RCEMPA). The group also attended a concert featuring Yamaha artist Mr Nise Meruno and Mr Nourhe Khate. The students wore traditional Naga mekhalas during a session by Dr. Theyiesinuo Kreditsu who, in addition to being one of the trustees of the Dr. K & T Kreditsu Foundation, is a feminist poet, writer, academician and the co-founder of the Centre for Indigenous Knowledge & Alternative Learning (CIKAL), Nagaland. Our students offered the hosts a taste of Maharashtrian culture through folk dances of the state during a cultural programme at Kohima Science College and at the valedictory programme. The warm, affectionate hospitality of the Naga people helped offset the chill February weather of Nagaland. The programme created life-long memories and everlasting friendships for the students of both the colleges. For the staff, who accompanied these students, the programme, with its perfect blend of academics, research and soul-searching, was both intellectually as well as emotionally rewarding.



(The activities in Mumbai and the travel of the Mumbai team to Nagaland was funded through the RUSA grant)

**ACTIVITY 11**  
**Medical Laboratory Technology' course (Add-on course)**

Venue- Sophia College for Women (Autonomous)

Date - 19th February 2020

Number of staff members involved – 01

Number of students involved: 16

**REPORT**

Name of the activity coordinator – Dr. Arjumanara Surti

Duration of course: 32 hours (From December 2019-February 2020)

Number of students enrolled: 16

Topics covered during Medical Technology Course

- Introduction to pathology
- Phlebotomy
- Hematology



- Biochemistry
- Clinical pathology
- Bacteriology
- Immunology
- Blood banking
- Lab management

TWO PURPOSE OF THE COURSE AND LEARNING OUTCOMES ENVISAGED: TEACH THEM IN THE JUNIOR YEAR AND GIVE THEM A GLANCE OF AN EXCITING CAREER POST Bsc, that is a career in HEALTH SCIENCES.

## Exam

<b>Exam Topics</b>	
Paper 1	Phlebotomy + safety + Microbiology culture techniques + Quality control and Quality assurance
Paper 2	Blood Bank + Immunology methods + Accreditation
Paper 3	Basic Hematology + Histogram + electrophoresis + CBC analyser
Paper 4	Basic Biochem + Vit D + Tumor markers + hormones
<b>Presentation Topics</b>	
1	Thyroid
2	Thalassemia
3	G6PD
<b>Poster Topics</b>	
1	Patient came for G6PD test with history of hemolysis
2	Patient came for blood sugar test with history of diabetes
3	Patient came with history of swelling in lower limbs
4	Staff came to emergency with history of needle stick injury

Completion certificate



**Sixteen students successfully completed the Medical Technology for the Undergraduate One-credit Certificate course and were awarded completion certificates.**

# FLYER

## ADD ON COURSE

Who can join?

UNDERGRADUATE STUDENTS OF SOPHIA COLLEGE (Science/Arts)

December 2019  
to  
February 2020

On Saturdays 2 hrs  
(Total of 32 hours )

VENUE:  
Sophia College Microbiology  
Department / OCA lab

Course fee:  
**Rs. 2000/- only**

Last Date of Registration:  
15th December 2019

Collection and submission of  
registrations form:  
Microbiology UG Lab (9 am to 11  
am)

For details contact:  
Dr. Arpanasara Serti  
Department of Microbiology  
Sophia college  
Email: arpanaserti@gmail.com

## SOPHIA COLLEGE DEPARTMENT OF MICROBIOLOGY



## MEDICAL TECHNOLOGY for the undergraduates A One credit add on course

The add on course is aimed at introducing the under-graduates to the world of Medical Technology. The student will be taught to collect blood and other pathological samples, process them, interpret the results and diagnose the disease. He/she will also be taught how to run the robotic machines and manage a pathology laboratory. The options available after doing a full fledged post graduate diploma in medical technology (also offered at Sophia after graduation in any science subject) are either in hospitals, sales, management, R&D of a diagnostic company. This add on course is exciting and it will give you a tiny glimpse into the fascinating world of pathology as it exists today!

### COURSE CONTENT (MODULES):

- Introduction to pathology
- Phlebotomy
- Hematology
- Bio chemistry
- Clinical pathology
- Bacteriology
- Immunology
- Blood banking
- Laboratory management

### Highlights

- Visiting facility from reputed hospitals and pharmaceutical companies
- Hands on training
- Internship

## **ACTIVITY 12**

### **Creative nature photography competition**

Venue- Sophia College for Women (Autonomous)

Date - 26th February 2020

Number of staff members involved – 01

### **REPORT**

To promote Creativity and connecting with nature , this photography competition was organized for SYBSc class at a local garden

### **Creative photography Winners**

Date: 26th Feb 2020



## ACTIVITY 13

### Field/Industrial visit to Common Effluent Treatment Plant (CETP), Kopar Khairane, Navi Mumbai

Venue- Common Effluent Treatment Plant (CETP), Kopar Khairane, Navi Mumbai

Date - 12th March 2020

Number of staff members involved – 02

Number of students involved: 20

#### REPORT

A one-day industrial visit was organized for MSc-I and MSc-II students to the Common Effluent Treatment Plant (CETP), Kopar Khairane on 12th March 2020. Students were shown the biological methods used for industrial effluent treatment..

List of students

#### MSc-I

1. P19021- Ms Nicole Fernandes
2. P19022- Ms Rosephil Coutinho
3. P19023- Mr Rahul Gupta
4. P19024 - Ms Priyanka Supal
5. P19025 -Ms Annie Susan
6. P19026 - Ms Reema Yadav
7. P19027 - Ms Vaibhavi Mullasery
8. P19028 - Ms Misbah Ansari
9. P19029 - Ms Aamina Khan
10. P19030 - Mr Gaurav Sriram

#### MSc-II

1. PM18001 - Ms Annemary Alapatt
2. PM18002 - Ms Ankita Ingale
3. PM18003 - Ms Mansi Kadam
4. PM18004 -Ms Tasneem Kapasi
5. PM18005 - Ms Olivia Anthony Lopes
6. PM18006 - Ms Nikita Lore
7. PM18007 - Ms Sian Pinto
8. PM18008 - Ms Ayesha Shaikh

9. PM18009 - Ms Bilquis Warsi
10. PM19010 - Ms Riya Yadav

Teachers who accompanied students -

1. Mr. Vijay Vig
2. Ms. Ruqsana Khan





## **ACTIVITY 14**

### **Scientific writing workshop**

Resource person: DR. RADHIKA TENDULKAR, Department of Life Science and Biochemistry, St. Xavier's College (Autonomous), Mumbai

Venue- Online (Platform: ZOOM)

Date - 13th and 14th May 2020

Number of staff members involved – 02

Number of students involved: 65

### **REPORT**

**ONLINE COURSE ON SCIENTIFIC WRITING (Under the aegis of the DBT Star College Scheme)**

#### **Sessions**

Day 1 - Creative & Academic Writing Day 2 - Research paper/ Report writing. The course was designed to equip the students with the necessary tools to excel in both creative and academic writing, as well as in the meticulous task of writing research papers and reports.

#### **Creative & Academic Writing:**

Students were guided to express ideas creatively while maintaining the structured,

evidence-based approach essential for academic writing. The session focused on clarity, coherence, and structuring the writing to the intended audience.

### Research Paper/Report Writing:

In this session, students were guided through the process of writing research papers and reports, which is a crucial component of scientific communication. Students learned to formulate strong research questions, conduct thorough literature reviews, and present their findings in a manner that adheres to academic standards. The importance of citations, ethical considerations, and plagiarism prevention was also discussed.

Timeamp	Email Address	Full name (starting with the name and ending with the surname)	Class	How did you find the content of the two sessions?	Which of the two sessions did you find useful?	Kindly mention what you found the most useful in the sessions	Kindly rate your overall knowledge level of the topics covered in the sessions, before attending this course	Kindly rate your overall knowledge level of the topics covered, in the sessions after attending this course	Kindly indicate your preference for topics for future sessions	Your overall impression of the course.
5/14/2020 18:40:23	krisika129@gmail.com	Krisika Fernandes	FyBsc	Good	Creative & Academic Writing (day 1)	Hedging	Very good	Very good	Know more about plagiarism	Useful
5/14/2020 18:27:10	bhavikabhuir729@gmail.com	Bhavika Bhui	TyBsc	Good	Creative & Academic Writing (day 1)	Analysing what is required.	Fair	Good	Embryology	Average.
5/14/2020 18:40:05	annemarylapar@gmail.com	Annemary Aparait	<a href="#">M.Sc</a>	Very good	Research paper/ Report writing (day 2)	The simple language used to explain the segments. The session gave an insight to scientific writing in a very student friendly manner.	Good	Very good	Use of statistics in research	It surely will help me in improving my editing skills
5/14/2020 18:53:52	anudraajoshi@gmail.com	Mudra Vipin Joshi	SyBsc	Very good	Both	The clarity	Excellent	Excellent	Co	Coronavirus
5/14/2020 18:39:10	rajehmani@gmail.com	Jahmani Nair	FyBsc	Excellent	Creative & Academic Writing (day 1)	Steps we should avoid for effective writing.	Fair	Very good	Research paper writing	Good



3/14/2019 01:40	DEEPA MENDON1234@GMAIL.COM	DEEPA RAVI MENDON	FYBac	Very good	Both	We got an idea about what is a good writing how to write up points etc	Very good	Excellent	Covid-19	It was really great
3/14/2019 04:24	srusti.karvir@gmail.com	Srusti Karvir	FYBSc	Very good	Both	Creative writing	Fair	Good	More about research paper writing, then sometimes clarifying some important basic topics of science, more about presentations, works etc., how one should start a new scientific work, sessions on field options.	It was really helpful to me and the ma'am was cooperative and wonderful.
3/14/2019 15:02	prerana.yeole2001@gmail.com	Prerana rajendra yeole	Fybsc	Excellent	Both	Report writing	Very good	Very good	Peer review	Good
3/14/2019 19:30	sakshi.gohil10@gmail.com	Sakshi Gohil	FYBSc	Excellent	Both	Research paper writing	Excellent	Excellent	How to elaborate a topic in a better way in scientific writing so that people like to read it	Excellent

5/14/2025 19:32:49	ishaheen237@gmail.com	Shaheen Chauthary	Fybsc	Excellent	Both	How to start writing research paper and words using in sentences	Excellent	Excellent	Immunology	Good
5/14/2025 19:43:30	nishi.narayana05@gmail.com	Nishi Narayanan	TYBSc	Excellent	Both	Plagiarism, ethics	Good	Very good	Recent research, vaccine, recent CRISPR studies	Insightful
5/14/2025 19:45:25	ndakadam1116@gmail.com	Hida kaidas kadam	Fybsc	Very good	Research paper/ Report writing (day 2)	The format of reference and the websites mentioned for checking your article	Good	Very good	Nothing	Useful
5/14/2025 19:52:24	rpoharipriya123@gmail.com	Nohmi priya	Fybsc	Very good	Both	How we can put our observation scientifically	Very good	Very good	Research paper writing	Good
5/14/2025 20:12:32	sapnasah01232@gmail.com	Sapna Shah	Fybsc	Good	Both	To write a perfect review which is useful in writing college assignments	Fair	Good	How to establish a good content	A perfect course to study scientific writing which is used in many phase of study and to write and learn the way to write

5/14/2025 20:12:38	ritikabwan0502@gmail.com	Ritika Ramanuj Theat	FYBSC	Very good	Both	Report writing	Fair	Very good	I will try to write reports and assignments	I liked the both session
5/14/2025 20:15:24	shvansahay6@gmail.com	Shivani sahay	Fybsc	Excellent	Both	Creative writing	Excellent	Excellent	Personality development	It was a well planned course
5/14/2025 20:24:30	saloneelopes@gmail.com	Salonee Thomas Lopes	Sybsc	Very good	Both	Various components necessary to construct a good research paper	Very good	Very good	Epidemiology	It was a very informative course and we got to learn how to write a good research paper
5/14/2025 20:30:24	riyankansara1@gmail.com	Riya Kansara	Sybsc	Very good	Creative & Academic Writing (day 1)	The entire session was very useful but to be specific it taught the way to write an article or any research paper or any content	Excellent	Excellent	I would love to learn an expansion & tips to improve memory power.	It was actually a very good experience. It added up a lot to my knowledge than before in the branch of scientific writing

5/14/2023 21:24:28	tasneemkaps1007@gmail.com	Tasneem Kapasi	MSc-2 microbiology	Very good	Both	Detailed explanation on each topic as well as teaching with examples was beneficial	Fair	Good	-	Good
5/14/2023 22:25:43	gautams14@gmail.com	Gautami Ganesh	FYBSc	Very good	Both	The proper method to write the scientific report and also these methods are also useful for further academic purpose	Good	Excellent	How to write an introduction which covers all the further paragraphs	It was a very good course which helped me in understanding how to actually write an scientific report. It also helped me in improving my writing skills and how creative I can be while writing
5/14/2023 22:33:52	gahira@gmail.com	Juhira Frosh	Fybsc	Excellent	Both	The explanation about plagiarism and the whole body of the paper	Fair	Very good	The actual research papers and how plagiarism cases to be discussed	It was very informative and I loved the sessions

514200 225829	remember2nt e@gmail.com	Krupka Singh	FYBSc	Excellent	Both	Various ways to avoid plagiarism	Excellent	Excellent	Covid best kits	Excellent. Definitely worth of the time and attention. Will attend next course too.
515000 120817	sushmitabgo wla777@gmail.com	Sushmita Gowda	FyBSc	Excellent	Both	Proper explanation on what to write, how much to write and how to present.	Fair	Very good	Scientific explanation to give short conclusion for long process	It was really good helpful and it also kept us captive to know more of research writing and assignment writing
515000 123729	pratapogm ai.com	Jovita Jay manachery	lybsc	very good	Both	Parts of research paper and information about plagiarism	Very good	Very good	-	Very informative
515200 130811	suthasreegos wami45@gmail.com	Madhurima Goswami	FYBSc	Excellent	Both	Scientific writing	Excellent	Excellent	How to write statement of purpose	Very informative, this will be of utmost help throughout our life.

515000 173818	kimberlyosere a2002@gmail.com	Kimberly basington petra	Fybsc	Excellent	Both	The rules while writing research paper.	Good	Excellent	Case study how to formulate a good article, more details and rules about doi	it was very effective and clear. Plagiarism rules will give me a red signal whenever i write a paper in future. The ppt was very straight to understand! Overall was a useful session. Thank you Radhika Mam!!!
515000 224313	aafreenaaran 744@gmail.com	Aafreen Aslam Aansari	Sybsc	Very good	Creative & Academic Writing (day 1)	The tips to write an article and the grammar lessons	Good	Very good	Hedging in detail	It was a interesting course which enhanced by previous knowledge

6/15/2020 22:49:57	karskpi@gmail.com	PRIYA NEELESH KARNIK	T. Y. B. Sc	Very good	Both	How to avoid plagiarism	Fair	Good	Would like to know more on how to avoid plagiarism. Also topics related to human microbiome would be interesting	Very well conducted course. The speaker made the topics all very understandable and simple. The application used for conducting the course was also good
6/15/2020 22:49:57	sawantbhargavee75@gmail.com	Bhargavee Awadhat Sawant	FYBSc	Very good	Both	The way of writing a content systematically	Fair	Very good	I would like to know the method of writing research papers in detail.	I really learned a lot through this course. The course was very helpful, I am waiting for a chance and apply the knowledge I got through this course.
6/15/2020 22:49:45	abeenash25@gmail.com	Beenash Ansen	Fybsc	Very good	Creative & Academic Writing (day 1)	The information provided	Fair	Very good	Antibiotics	Every useful

5/10/2020 22:34:02	prashantha.srisa20@gmail.com	Prashantha Sribansrayan a sisilla	tybsc	Very good	Both	Plagiarism and methodology	Good	Very good	Research	Excellent
5/10/2020 22:17:34	aa3074500@gmail.com	Anjali Chetan Sharma	FYBSc	Good	Research paper/ Report writing (day 2)	Report writing	Fair	Good	Maybe about microbiology studies	Good
5/10/2020 0:05:57	bhagyashnikowankar@gmail.com	Bhagyashri Kowankar	FYBSc	Excellent	Both	Creative and Research writing	Good	Very good	Reference writing	It is very helpful for report writing and assignment
5/10/2020 11:56:17	deekyfernandes200@gmail.com	Deeky Fernandes	TYBSc	Very good	Both	Review writing	Very good	Very good	Research	It was quite helpful
5/10/2020 14:12:29	srisipradhan1628@gmail.com	Srisri Pradhan	TY BSc	Good	Research paper/ Report writing (day 2)	Research writing	Fair	Very good	Research related topics	Very informative
5/11/2020 15:37:27	marianne.dsilva.3@gmail.com	Marianne Shradha D'silva	SYBSc	Good	Both	At the end ma'am gave some additional write ups that she prepared	Fair	Good	How to do literature survey and review in detail	Good,
5/11/2020 16:37:54	heena.dave2000@gmail.com	HEENA NITIN DAVE	SYBSC	Very good	Both	How to be creative, concise and precise also how to write or review scientific papers	Good	Very good	How to search interesting topics	The course was very good.

9/1/2020 192820	avnirao20@gmail.com	Avni Rao	MSci	Very good	Both	Details involved in writing- each criteria	Good	Very good	Relevance of various scientific journals based on the research	Very detailed and helpful
9/1/2020 184250	gayathri.chandran47@gmail.com	Gayathri Chanoran	SYBSc	Excellent	Both	Reference citation and the 'Materials & Methods' detailing	Excellent	Excellent	Understanding and making sense current research	The course was excellent, it was structured very well and was very informative
9/1/2020 184120	sakshibhagat@gmail.com	Sakshi Rahul Bhagat	Sybsc	Very good	Both	The plagiarism part and the exercises	Fair	Very good	Bionformatics	The session was very helpful. It would have been better if we would be able to do such sessions more
9/1/2020 257520	chandrima902@gmail.com	Chandrima Chakraborty	lybsc	Very good	Both	Referencing and paraphrasing and hedging	Very good	Very good	Abstract writing	Very good

9/1/2020 202640	zafiahaz26@gmail.com	Zafiah Zaki Farhan	MSc II	Very good	Both	Academic writing and Research writing	Good	Very good	Statistical analysis and their tools	The course was well planned and interactive. It helped brushing our academic writing skills.
9/1/2020 204720	ayushinagdev11@gmail.com	Ayushi Nagdev	MSc	Very good	Both	Assignments	Fair	Good	It should have more assignments and exercises.	Great
9/1/2020 210120	dcunhaajal@gmail.com	Opal DCunha	MSc	Excellent	Research paper/ Report writing (day 2)	How to write literature surveys and research paper and avoid plagiarism	Good	Very good	Making of graphs and what kind of graphs are used for what kind of data	Was very useful
9/1/2020 210150	payra@tetchima@gmail.com	Vandana Kodakandla	Msc 2	Very good	Research paper/ Report writing (day 2)	The teacher's interest in answering our questions	Fair	Very good	Please consider meta analysis.	Good

3/17/2020 21:44:54	reneeshshetty@gmail.com	Renee Sudhakar Shetty	SYBSc	Very good	Both	I came to know about plagiarism. I also came to know about report writing. How a research paper is written, the format.	Fair	Very good	All the topics were good and interesting.	The course has helped me to increase my knowledge about writing, research paper. It was very helpful and interesting.
3/17/2020 22:16:54	sanjana.krishnakumar9@gmail.com	Sanjana Krishnakumar	TyBSc	Excellent	Research paper/ Report writing (day 2)	Learning how to use hedging effectively	Good	Very good	Writing a research expose	It was really good and very engaging.
3/17/2020 23:32:51	osouzamaria075@gmail.com	Maria D'souza	SYBSc	Very good	Both	the various methods that can be used to write a report in a scientific manner	Good	Very good	how and what to write in research projects	It was good and really helpful
3/18/2020 0:52:04	heenalpanchal25@gmail.com	Heenal J Panchal	MSc	Excellent	Both	Research paper writing	Good	Very good	Format types	Helpful
3/18/2020 0:53:08	salinamubeerreshi@gmail.com	Salina Nobin Qurishi	SyBsc	Excellent	Both	Every topic was explained well and skills for writing an articles that are required were precisely mentioned.	Good	Very good	I would love attend sessions for creative writing and paper presenting	It was an excellent course with good amount of information and knowledge



5/16/2020 1:07:34	michperera17@gmail.com	Michelle Perera	Med Part 1	Excellent	Creative & Academic Writing (day 1)	The knack of good writing was explained very well	Good	Excellent	Concise content creation and interactive science writing (where science is made simple for better understanding)	Very well explained. The course was conducted in a very good manner. Quite a lot of important aspects were explained in a short time. It was great, informative and indeed helpful!
5/16/2020 10:54:26	palaksharma16@gmail.com	Palak Sharma	T.Y.B.Sc.	Very good	Both	By attending the session I found out what mistakes I made during my project reports.	Fair	Good	What should be kept in mind while reading research papers.	It was good
4/21/2020 11:13:31	dianndosouza@gmail.com	Dianne Catherine Dosouza	SYBSc	Very good	Research paper/ Report writing (day 2)	Getting to know all the journals one can consider publishing in.	Good	Very good	To throw light on the topics one can write articles or papers about	Helpful

921/2020 14:52:01	khazeen@gmail.com	Ansan iqra	Misc	Very good	Both	How to address an image in the paper	Good	Very good	Putting error bars to bar graph, how to put a scale on an image, and how much can we edit a picture before putting in thesis	Very nice
922/2020 12:35:11	maribusaa15@gmail.com	Mariya Arthur D'souza	Bylac	Good	Both	What i found useful was the use of different ways to write sentences and the way or sequence to write the research paper.	Good	Very good	Session on recent researches going on .	It was a very interesting session . something very important for young minds to have knowledge how to write any research paper. I definitely liked the session
924/2020 18:34:36	sauni.dhodi@gmail.com	Sauni Dhodi Lobo	MSc II	Good	Research paper/ Report writing (day 2)	Information and techniques with Hedging	Good	Good	Non academic writing	Good
924/2020 18:34:44	shahjishna271@gmail.com	Jishna Shah	TyBSc	Very good	Both	Overall the entire session was very helpful.	Fair	Very good	Research paper writing	The course was insightful and very helpful.

5/24/2025 19:03:39	kashmira.rayada@gmail.com	Kashmira Munish Vayeca	Tybsc (micro)	Very good	Both	Analysis of a research paper - hedging and ways to avoid plagiarism	Fair	Good	Creative writing	It was very informative and useful
5/24/2025 18:12:23	madhureemapandya@gmail.com	Madhureema Pandya	TYBSc	Excellent	Both	The guidelines to write a research paper	Excellent	Very good	To dos and don'ts in research paper writing	It was very informative and many important things about research paper writing
5/24/2025 18:19:59	janavpanchal@gmail.com	Janav Panchal	MSc 1 - Life Sciences	Excellent	Both	The Report writing concept	Fair	Very good	Reading research papers efficiently and quickly	The course was effective in clearing concepts on Scientific Writing and report writing
5/24/2025 18:38:31	swachaneetra2002@gmail.com	Swacha rai	Fybsc	Very good	Both	We learn new topics	Very good	Very good	More similar sessions	I learn very effective way of writing skills I admire the knowledge of this session which will going to help me future

5/24/2025 21:20:05	madanireba192@gmail.com	Zeba Madani T	<a href="#">Tyb.sc</a>	Very good	Both	Introduction to various writing techniques e.g. hedging	Good	Very good	Analysing scientific articles	Great . Explanation of each and every topic covered was clear.
5/24/2025 21:47:55	drishikotari15@gmail.com	Drishit Nivni Kotari	FYBSc	Very good	Both	The assignments given for homework which helped to expand our thinking capacity	Good	Very good	Ideas to eradicate plastics (creative)	The course was very beneficial.
5/24/2025 23:08:44	sonaldhavali9@gmail.com	Sonal dhavali	Msc II	Very good	Both	Report writing	Very good	Very good	Presentation skills	Good
5/25/2025 04:53:18	jmsv2516@gmail.com	Jimsy Joseph Chiramel	SYBSc	Very good	Creative & Academic Writing (day 1)	Points such as self plagiarism is also not allowed while writing a research paper and we need to have solid theories based on research while writing a research	Fair	Very good	Scientific writing and self plagiarism	Very informative



SOPHIA COLLEGE (AUTONOMOUS)

INVITES YOU TO ATTEND

## **AN ONLINE COURSE ON SCIENTIFIC WRITING**

(Under the aegis of the DBT Star college Scheme)

**ON 13TH AND 14TH MAY 2020  
(PLATFORM: ZOOM)**

**BY DR. RADHIKA TENDULKAR**

Department of Life Science and Biochemistry,  
St. Xavier's College (Autonomous), Mumbai

**To register for the course, please fill the Google form provided  
by Monday, 11th May, 2020**

**Please note: E- Certificates will be provided only to those  
who attend both the sessions AND submit the assignment  
(which will be given on the second day of the course)  
within 10 days.**

### **3. Special pedagogical tools used, other than the lecture method**

1. Use of multimedia like PPTs
2. Youtube Videos and Animations
3. Seminar presentation by students
4. Quizzes, Assignments
5. Online quizzes
6. Worksheets - Problem solving, Analytical questions
7. Flipped Classroom
8. Role play
9. Working Models
10. Debate
11. Field Visits
12. Collaborative learning and Peer evaluation

### **4. Any special programs conducted for either/both slow learners and advanced learners.**

Though not a formal program, the department actively participated in helping both slow and advanced learners with their queries outside the regular classrooms and laboratories. The staff members invested time and engaged in healthy academic conversations with students regarding doubts about specific topics, projects, report writing, experiments, etc.

### **5. Research Papers Presented**

Research Posters were presented by the Undergraduate students at “Quest-Wider than the Sky”, a research meet organized by the college on the occasion of National Science Day on 28th February 2020.

39 undergraduate students represented the Department at Quest-Wider than the sky where they presented their projects done under DBT Star College scheme. There were 17 posters in total.

Titles of the posters are –

T.Y.B.Sc.

- i. Ms. Zahabiya Chinikamwala, Ms. Madhureema Pandya and Iman Dhansey - Preliminary studies on microbiological degradation of methylene blue by *Bacillus cereus*
- ii. Ms. Isha Barve and Ms. Prashanthi Sirisilla - Preparation of slow release biofertilizer using cellulose nanoparticles and the study of its effect on plant growth
- iii. Ms. Sumaiya Ansari and Ms Rukhsar Khan - Qualitative and quantitative detection of Lipase and its application
- iv. Ms. Asma Shaikh and Ms. Shivani Sahay- Microbiological analysis of Ganga water

- v. Ms. Fatima Zarah Arif Chamadiya and Ms. Shabnam Khan - Isolation of oleaginous yeast for production of PHB and fatty acids
- vi. Ms. Priya Karnik - Isolation and identification of *Bacillus cereus* and determination of the antimicrobial spectrum of the bacteriocin like substance produced.
- vii. Ms. Asmita Khadye, Ms. Jinisha Shah and Ms. Riffat Khan - Phytochemical characteristics, antimicrobial and antibiofilm activity of ginger extract
- viii. Ms. Nafia Zahidi and Ms. Radhika Dashottar - Detection of pathogens in icecreams produced by large scale manufacturers in Mumbai city
- ix. Ms. Akanksha Basnath, Ms. Bhavika Bhoir and Ms. Jovita Menachery - Bacterial pigment extraction to determine its antimicrobial activity.
- x. Ms. Amanda Taffy Valiarambil and Ms. Sristi Pradhan - Studying the importance of shelf life on the quality of butter and mayonnaise before and after the expiry date
- xi. Ms. Delcy Fernandes and Ms. Kashmira Vayeda - Antimicrobial activity of biologically synthesized copper nanoparticles and silver nanoparticles.

#### S.Y.B.Sc.

- i. Ms. Aafreen Ansari, Ms. Shakira Khan and Ms. Vidhi Rathod -Microbiological analysis of Mayonnaise samples served at local snack shops in Mumbai.
- ii. Ms. Lopamudra Panja and Ms. Shilpa Binoj - Studying the antibacterial effect of ANTI-BAC Crompton LED bulb on endospore forming bacteria *Bacillus cereus*.
- iii. Ms. Disha Vaidya and Ms. Tiann Jacinto - Verification of antibacterial effect of ANTI-BAC Crompton LED bulb on air flora by sedimentation method.
- iv. Ms. Hasnat Khan, Ms. Mudra Joshi and Ms. Shaziya Sayed - Studying the antibacterial effect of ANTI-BAC Crompton LED bulb on pigment producing bacteria such as *Serratia marcescens* and *Sarcina lutea*.
- v. Ms. Jyotinripa Kalita and Ms. Kajal Rai - Analysis of water quality in Banganga tank.
- vi. Ms. Pranali Singh, Ms. Riya Kansara and Ms. Safiya Khan - Life in Arabian gulf: Isolation and Gram nature of halophilic organisms from Tarout bay, Dammam, Saudi Arabia

#### **6. Workshops/seminars/ Conferences conducted during the year.**

1. A talk on 'Career options in Medical Laboratory Technology' by Ruzbeh Mowdawala Coordinator DCA, Sophia College, and Prina Shah was organized on 26<sup>th</sup> August 2019.
2. A talk on Nanotechnology by Deepa Khuslani, Scientist TIFR, was conducted on 30<sup>th</sup> August 2019.
3. A mini-symposium on Current Challenges on Cervical and Breast Cancers: Facts and Fiction was organized in collaboration with Cancer Patients Aid Association on 4th February 2020.

## **7. Workshops/seminars/ Conferences conducted on Gender related issues (IPR), during the year.**

A mini-symposium on Current Challenges on Cervical and Breast Cancers: Facts and Fiction was organized in collaboration with Cancer Patients Aid Association on 4th February 2020.

## **8. Extension activities carried out in the neighborhood sensitizing students to social issues for their holistic development**

A collection drive was organized by S.Y.B.Sc. and MSc-II students where old clothes were collected. The collected clothes were donated to children of Jagannath Shankar Sheth Municipal School, Grant Road on 10th July 2019. S.Y.B.Sc. students also performed a skit for the above students to show the adverse effects of anger and aggression.

## **9. Capacity Development and Skill Enhancement activities organized for improving students' capabilities; like Soft Skills, Language and Communication Skills, Life Skills (Yoga, Physical fitness, Health and Hygiene) & Awareness of Trends in Technology.**

1. Mrs Jyoti Mantri organized a yoga session for students of Sophia College for Women on 21<sup>st</sup> June 2019, which was celebrated as international yoga day
2. ONLINE COURSE ON SCIENTIFIC WRITING (Under the aegis of the DBT Star College Scheme) - Resource person: DR. RADHIKA TENDULKAR, Department of Life Science and Biochemistry, St. Xavier's College (Autonomous), Mumbai The course was designed to equip the students with the necessary tools to excel in both creative and academic writing, as well as in the meticulous task of writing research papers and reports. This was inter-departmental activity in collaboration with the Life Science Department.