

**IN HOUSE TRAINING PROGRAMME 'BASIC SKILLS IN BIOLOGICAL SCIENCES'**

**(19.12.22 TO 22.12.22)**



**IN HOUSE TRAINING PROGRAMME  
ON  
BASIC SKILLS IN BIOLOGICAL SCIENCES**

**19.12.2022 – 22.12.2022**

**UNDER STAR COLLEGE SCHEME**

**2022-2023**



**Sponsored by**

**Department of Biotechnology  
Ministry of Science & Technology,  
Govt. of India, New Delhi**

**Organized by**

**Marian Star Centre  
Department of Zoology  
St. Mary's College (Autonomous),  
Thoothukudi, Tamil Nadu  
(Reaccredited with 'A+' Grade by NAAC)**

**Venue: Zoology Lab**

**Time: 9.30 a.m. to 1.30 p.m.**

**ORGANIZING COMMITTEE**

**Patron**

Rev.Sr.Dr.C.Shibana

Secretary, St. Mary's College (Autonomous), Thoothukudi

**Chairman**

Dr.Sr.A.S.J. Lucia Rose

Principal, St. Mary's College (Autonomous), Thoothukudi

**Convener**

Dr. N. Arokiya Mary

Associate Professor and Head

Department of Zoology

**Overall Coordinator & Member Secretary**

Dr.Sr.A. Arockia Jenecius Alphonse

Assistant Professor of Botany, St. Mary's College (Autonomous), Thoothukudi

**Department Coordinator**

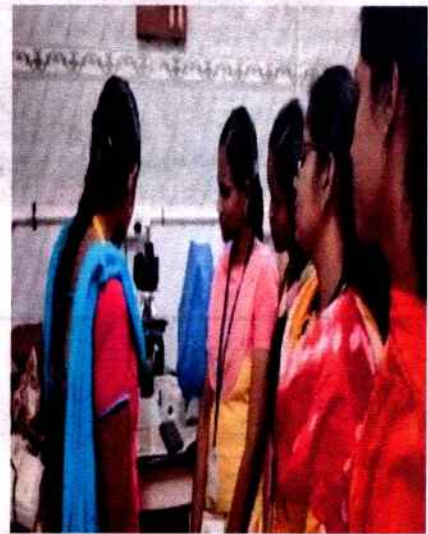
Dr. R. Sri Priya, Assistant Professor of Zoology

**Instructors**

Dr. Jemma Hermelin Jesy Diaz, Assistant Professor of Zoology

Dr.M.Paripooranaselvi, Assistant Professor of Zoology

Dr.P.Subavathy, Assistant Professor of Zoology





## **Report**

An in-house training in 'Basic Skills in Biological Sciences' for the undergraduate students of the St. Mary's College (Autonomous), Thoothukudi, was organized by the Department of Zoology between 19.12.22 to 22.12.22. Hands on training on various techniques that are included in the syllabus was taught to the students by the faculty of Department of Zoology. The training was focused on giving practical exposure to the theoretical aspects included in the syllabus, that are not included in the practicals. The students were divided into groups and were allowed to perform the experiments. Each student was given an opportunity to handle the experiments

During the training session for I B.Sc Botany students, were imparted hands-on training on various laboratory techniques and equipments. They were given training on analysis of urine, and usage of various lab instruments like stethoscope and sphygmomanometer. They were trained to identify blood groups A, B, AB, O & Rh factor. With the aid of urine analyzer, qualitative components such as leukocyte, urobilinogen, ketones, nitrites, bilirubin, protein, pH and specific gravity of sample were analyzed. They were also trained on counting RBC and WBC. The main outcome of this in house training programme was that, the students were able to enhance their mastery in practical skills in collecting and analyzing biological specimens and other substances. The instructors of the programme Dr. Jemma Hermelin Jesy Diaz, Dr.M.Paripooranaselvi and Dr.P.Subavathy imparted training to the students. Totally 33 students were benefitted out through this in house training programme.

An In house Training programme was conducted for the III B.Sc Zoology of St.Mary's College (Autonomous), Thoothukudi on 21.12.2022 under Star college scheme. Students were trained to observe and measure the diameter of the cell through ultra microscope. They were explained about the principle and applications of the phase contrast microscope. Students visualized the movement of live cell with the help of the phase contrast microscope. Students were also given training on counting the bacterial colonies using colony counter. The objective of this in house training programme is to enhance the practical skills of the students by giving additional training and convert theoretical learning into practical experience. Dr. Jemma Hermelin Jesy Diaz, Dr.M.Paripooranaselvi and Dr.P. Subavathy gave training to the students. 36 students were benefitted through this in house training programme.

One day in house training programme for II B.Sc Zoology students was conducted on 22<sup>nd</sup> December 2022. The students were trained on using Stethoscope, Sphgmomanometer and haemoglobinometer. Since the students are learning Clinical Laboratory Technology as Skill based elective subject, the in house training programme was arranged to learn the utility and the applications of these clinical instruments. Their practical skills were improved. the students learnt to analyze their urine sample and to identify their blood groups A, B, AB, O & Rh factor. Qualitative components such as leukocyte, urobilinogen, ketones, nitrites, bilirubin, protein, pH and specific gravity of sample were analyzed with the support of urine analyzer. Haemoglobin was estimated using Haemoglobinometer. The instructors of this programme were Dr.Jemma Hermelin Jesy Diaz, Dr.M.Paripooranaselvi and Dr.P.Subavathy who helped the students to enhance their skills. Totally 37 students were benefitted through this in-house training programme.

Hands on training on various Biotechnology experiments that are included in the syllabus of II B.Sc. Zoology students of the Non-Major Elective, was taught to the students by Dr.R. Sri Priya, Assistant Professor of Zoology, Thoothukudi on 20.12.22. The students were explained about the principle and protocol of the experiments. They were divided into groups and were allowed to perform the experiments. Each student was given an opportunity to handle the experiments. The students were given training on DNA isolation, Agarose gel electrophoresis and SDS PAGE. They were allowed to prepare the cultures for the experiments. They were made to process the samples and load the gel. The experiments were performed under the standard conditions and the students observed the results of each experiment and were made to interpret the results. 40 Students were benefitted.

## Certificate



### ST.MARY'S COLLEGE (AUTONOMOUS)

(Re-accredited by NAAC with A+ Grade)

Thoothukudi-628 001, Tamil Nadu

Under Star College Scheme  
SPONSORED BY

Department of Biotechnology, Ministry of Science and Technology, Govt. of India , New Delhi

Organized by

Marian Star Centre and Department of Zoology, St. Mary' s College, (Autonomous), Thoothukudi

#### Certificate of Participation

This is to certify that *Ms. Eva Sherlin, I B.Sc. Zoology* of *St. Mary' s College, (Autonomous), Thoothukudi* has participated in the **IN HOUSE TRAINING PROGRAMME On 'BASIC SKILLS IN BIOLOGICAL SCIENCES'** from **19.12.22 TO 22.12.22.**

*Dr. Sr. Arokia Jenecius Alphonse*

**Dr. Sr. Arokia Jenecius Alphonse**  
Overall Coordinator & Member Secretary  
DBT STAR Scheme  
St. Mary's College (Autonomous), Thoothukudi

*Dr. N. Arokiya Mary*

**Dr. N. Arokiya Mary**  
Associate Professor and Head,  
Department of Zoology  
St. Mary's College (Autonomous), Thoothukudi

*Sr. Dr. A.S.J. Lucia Rose*

**Sr. Dr. A.S.J. Lucia Rose**  
Principal  
St. Mary's College (Autonomous), Thoothukudi

*X. Antheiya Mary*  
**Head of the Department**

**Dr. N. AROKIYA MARY** M.Sc., M.Phil., Ph.D.  
Associate Professor & Head  
PG & Research Department of Zoology  
St. Mary's College (Autonomous)  
Thoothukudi - 628 001.

*B. Serena Margaret*  
**IQAC Coordinator**  
**IQAC Co-ordinator**  
**St. Mary's College (Autonomous)**  
**Thoothukudi**

*Lucia Rose*  
**Principal**  
**St. Mary's College (Autonomous)**  
**Thoothukudi-628 001.**