



SHRIMATI INDIRA GANDHI COLLEGE

(Nationally Accredited at “A” Grade (3rd Cycle) by NAAC)

Chatram Bus Stand, Tiruchirappalli – 620002.

CRITERION - II

2.3.1. STUDENT CENTRIC METHODS FOR BIOCHEMISTRY

2.3.1 Experiential Learning

Work Shop

“One day workshop on production of Biofertilizer”- 15.07.2017

The students learnt about the production of Panchagavya and its uses in promoting growth, immunity and dense flowering with more female flowers which will produce fruits regularly, increasing the yield and Shelf life, and promoting growth hormone synthesis. The flowers and vegetables produced using panchagavya have a good flavour and aroma.



International workshop on “Biochemical and Bioinformatics Techniques” - 05.09.2017.

Dr.A.Antony Samy was the resource person for the Technical session I, delivered a lecture on the topic “Tools of Bioinformatics”. He explained that the tools are the software programs for saving, retrieving and analyzing Biological data and extracting the information from them which are very user friendly.

Dr. A. Vijayanand, was the resource person for Technical session II and delivered a lecture on “Identification of phytoconstituents using Biochemical Techniques'. He enlightened the role of biochemical techniques on identifying phytoconstituents in plants.

The students also got hands on training on basic similarity search tools (BLAST and Clustal W) and Protein molecular visualization tool (PYMOL). A total of 365 participants, which included students, scholars and faculty members from various institutions, participated in this workshop.



“Production of Vermiwash”- 21.03.18

The students got hands on training on the production of Vermiwash. Vermiwash contains excretory products and mucus secretions of earthworms, growth hormones and micronutrients from soil. Vermiwash may be mixed with cow's urine and diluted and sprayed on plants to function as an effecting foliar spray and pesticide helping plant growth and preventing infections. Around 35 students from I & II MSc Biochemistry participated and benefited from this programme.



Field Visit

An Ecological Field Study - 16.10.18 Manakkal East Street, Lalgudi

The Purpose of field visit was to achieve the knowledge about the fresh water system and to study over exploitation of ecosystem. From the field study the student gained knowledge in the dynamic complex of plant, animal and microorganism and non-living environment in the pond ecosystem. This is one of the method of real teaching with live practical example of ecological pond.



**“A Visit to Pollution Free Environment and Solid Waste Management-Ponnampatti –
10.02.2018**

Mr. Shahul Hameed, Ponnampatti Town Panchayat, explained about the cultivation of plants using organic fertilizer exclusively. The scavengers of that Panchayat demonstrated about the process involved in the collection of litter from Panchayat and preparation of organic manure. The students also witnessed the solid waste management, biogas preparing process from cow dung and food waste, preparation of manure from fish and poultry waste, rain water harvesting technology, green house plantation, alternative source of electrical energy from sun by using solar panel. Students were also trained to prepare soap.



A Field Visit to Biogas - Community Kitchen - 16.02.19

The Technical Assistant from Trichy City Corporation demonstrated the biogas production from human and vegetable wastes. 1000 kg of vegetable waste is used per day for biogas production. The students also visited the community kitchen equipped with biogas and micro compost unit. The official in-charge explained the process and stages of compost production.



Visit to Herbal Garden and Plantation of Herbal plants 21.09.2019

The main objective of the programme is to promote natural remedies by establishment of the Herbal Garden. Creation of herbal garden is a wonderful way to enjoy the sights, smells and tastes of a wide variety of plants. Herbs like Arali, Hibiscus, Nithyakalyani, Sangupoo, Nandhiyavattai, Sirukurinjan, Vilvam, , Keezhanelli, Marudhani, Vembu, Kuppaimeni, murungai & plantain tree were present in the garden. Herbal Saplings like Omavalli, thuthuvalai and Siriyangai were planted by the students.



Industrial visit

Yercaud – 02.03.2020

Thangam Coffee curing Works, Yercaud Road, Salem

Mr. Nandhagopal, Supervisor, Thangam Coffee Curing Works explained about the selection, processing and different types of coffee beans with three categories A, B and C. He explained the types of machines available for the purification and quality management of coffee beans.



Biotech R & D Laboratories, Yercaud

Dr. Anbazhagan, the technical assistant of Biotech R & D laboratories demonstrated the working procedure, applications of SDS PAGE, Gel electrophoresis and its importance in protein and molecular separation. He also explained the supply of laboratory chemicals and instruments related to electrophoresis techniques. The students benefited and asked questions related to the current technologies and placement.



Participative Learning

Guest Lecture - "Theranostics of Cancer" - 04.05.2022

Dr C. Aiyavu, Assistant professor, PG & Research Department of Biochemistry, Thanthai Periyar Govt. Arts & Science College, Tiruchirappalli pointed out some factors such as obesity, Type II Diabetes and oxidative stress with chronic inflammation as the main causes associated with cancer development. He also emphasized that contaminated foods, tobacco, alcohol consumption, personal care products and air pollution increase the risk of cancer. He suggested that Magnetic Resonance Imaging (MRI), biopsy, pap test and microarray technology were the significant screening tests used to identify cancer. He concluded that early diagnosis, treatment and dietary and lifestyle modification play a significant role in the prevention of cancer.



Students' Buzz Programme on "Secret of Life"

On the eve of National DNA day, The Department of Biochemistry organized a Students' Buzz programme on "Secret of Life". The programme started with the presentation by B.Malini of I B.Sc Biochemistry. She gave a brief introduction about DNA and explained its Double helical model. S.Ilakkiya of II B.Sc Biochemistry elaborated the Griffith Transformation experiment. P.Keerthana of III B.Sc Biochemistry clearly elucidated the steps involved in DNA replication followed by B. Nivetha of III B.Sc Biochemistry on the topic DNA Profiling. Finally, Causes, symptoms and complications of Genetic disorders such as Klinefelter syndrome, Noonan syndrome and Turner syndrome were described by R.Sridevi and R.Ashwitha of I and II M.Sc Biochemistry.



Peer Learning

Peer learning is a learning technique that promotes collaboration and teamwork to gain knowledge. Students of the same academic year associate as peers. They form partnerships to assist each other with course content and personal concerns. Students directly interact with other students and learn from each other. Each learner is both a recipient and donor of knowledge. All learners work together to find a solution to a given problem. Individual skills acquired before or during the teamwork are then shared amongst all teammates.



Internship

Four students from III B.Sc. Biochemistry (2014-2017 Batch) attended Summer Internship programme at Pasteur Institute at Coonoor on 29.5.2017 to 3.6.2017 observed certain procedures of production and testing of DPT group of vaccine and Tissue culture Antirabies vaccine. Through this relationship Students were able to expand their knowledge and understanding in the field of vaccine production. They gained hands-on training, professional experiences and Scientists in the field of vaccine productions.

