



(A Constituent P.G. College, University of Allahabad) Under the Strengthening Component of DBT Star College Scheme

Website: www.cmpcollege.ac.in

Department of Zoology C.M.P. Degree College, Prayagraj

#### Training programs conducted:

**Training of Manpower** 

#### **Equipments Training to Lab Staff:**

The in-house training program was conducted on August 9 & 10, 2021 in the Department of Zoology to train the laboratory staff Mr. Vikram and Jeetendra for handling, and maintenance of equipments, however, outdoor training program could not be conducted due to Covid-19 pandemic.







(A Constituent P.G. College, University of Allahabad) Under the Strengthening Component of DBT Star College Scheme

Website: www.cmpcollege.ac.in

**Two days' workshop on "Handling of Instruments, Chemicals and Glassware in Laboratories"** for training to non-teaching staff was jointly organized by Internal Quality Assurance Cell (IQAC), DBT Star College Scheme and Capacity Building Committee on August 22-23, 2023.



Nodal Departments for the programme were Zoology, Botany, Chemistry, and Physics. All





(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: www.cmpcollege.ac.in

the non-teaching staff of the department participated in this workshop. This workshop was jointly organized by Dr Deepa Srivastava, Dr Rekha Srivastava, Dr Pallavi Rai and Dr Sudhi Srivastava. Event Conveners were Dr. Meena Rai, Dr Arti Gupta, Dr Vinita Jaiswal and Dr. Sarita Srivastava (Coordinator IQAC/ Coordinator DBT Star College Schem) was the Coordinator of this Programme.

#### Day 1 (22-08-2023):

1. Visit to Laboratories

2. Listing of instruments

3. Handling of instruments: Homogenizer, Microscope, Double distillation unit, ELISA reader (Resource Person: Dr. Ashish Kumar Mishra, Assistant Professor, Department of Zoology).

#### Day 2 (23-08-2023):

1. Preparation of Chemicals

- 2. Handling of glassware
- 3. Sample identification (Zoology)
- 4. Disposal of chemicals and glassware

5. Museum curation (Resource Person: Dr. Nidhi Tripathi, Assistant Professor, Department of Zoology)



## चौधरी महादेव प्रसादमहाविद्यालय

C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)



Under the Strengthening Component of DBT Star College Scheme

Website: www.cmpcollege.ac.in

#### **Training to Students and Faculty:**

Seven days INTER DISCIPLINARY E-WORKSHOP on FUNDAMENTAL OF BIOTECHNOLOGICAL TECHNIQUES (25th Nov – 1st of Dec, 2020) was jointly organized by Department of Zoology and Botany. Three hundred twenty five (325) students participated in this E workshop. Dr Manoj Kumar Jaiswal and Dr Charu Tripathi were Organizing Secretaries from Dept. of Zoology.

Training was imparted in following topics:

- o DNA isolation from cells
- o Agarose Gel Electrophoresis
- Polymerase chain reaction
- o Sterilization and media preparation
- Plating, Streaking
- Gram staining
- Antimicrobial activity
- Primer Designing, Sequence retrieval, Phylogenetic tree construction, 3D visualization



Seven days Interdisciplinary FDP on Bioinformatics and computational Biology: Introduction and Approaches" (Dec 9, 2020 – Dec 15, 2020) under the aegis of DBT star college Scheme was organized by Department of Zoology, Botany and Chemistry. Ten faculties from Zoology Departments Attended this faculty development Program.



(A Constituent P.G. College, University of Allahabad) Under the Strengthening Component of DBT Star College Scheme

Website: www.cmpcollege.ac.in



graj on Saturday

INTER DISCIPLINARY Seven Days E-WORKSHOP on **Bioinformatics and Computational Biology** Introduction and Approaches (09th - 15th December 2020) Time:2:00 PM-5:00PM Jointly Organized by Departments of **Botany, Zoology & Chemistry Chaudhary Mahadeo Prasad Degree College** University of Allahabad, Prayagraj (Under the strengthening component of DBT Star College Scheme) **Organized Online** Zoom platform Target Group: Professors, Teachers & Research Scholars No Registration fee Sarita Sri ator - DBT Star College, Project ent, CMP College habad Pray 9335530055 ail: cmpdbtstar03@gmail.c

# Week-long FDP concludes

#### PNS 📕 ALLAHABAD

A week-long faculty development programme (FDP) on 'Management of Online Teaching and Learning System with MOOCs', organised by CMP Degree College in Collaboration with TLC, Indian Institute of Technology (Banaras Hindu University) under PMMMNMTT scheme of the Ministry of Education, concluded on Friday.

The programme was organised with the objective to train faculties to conduct online classes and manage open resources and tools for online teaching, which are crucial for making education available to students in the unprecedented time of COVID-19 pandemic. The FDP facilitated faculties with learning and hands-on experience of 'Open Educational Resources' (OER), 'Learning Management System' (LMS) and 'MOOCs'. It was conducted in live and interactive mode to provide real-time experience to participants.

In the valedictory session of the FDP, chairman of TLC, IIT-BHU Prof Prashant Shukla was present and he stated that CMP Degree College is one of the very first colleges in UP which conducted this programme. He assured handholding support to the college till December and even after that, if required, to make college's own LMS plat-form and CMP-LIVE platform workable. Principal of the college Brijesh Kumar conveyed his gratitude to the TLC, IIT-BHU for conducting FDP and providing assistance. The renowned resource persons across India like Prof Yogesh Velankar, Prof Ajit Mishra, Prof NS Rajput, Amber Jain were also present on the occasion. Convener of ICT Cell of college Manish Kumar Sinha welcomed the dignitaries and participants while coordinator of IQAC of the college Sarita Srivastava proposed the vote of thanks. The valedictory session was compered by Govind Gauray, organising secretary of the FDP.

**One day Webinar** followed by short quiz on "How to Read scientific literature and Introdoction to MAANAV, the human atlas initiative. By Dr Anupma Hashal W, ISSER Pune was organized by Department of Zoology under Project MAANAV-The Human Altalas Initiative, DBT. Dr Umarani Agrawal, Departmental coordinator, DBT Star College Scheme and Dr. Neerja Kapoor, coordinator, Interdisciplinary committee, DBT star college scheme organized this session on Aug 6, 2021. Around 400 students and faculties participated in this training session.

Pioneer



A Workshop on "**Double Diffusion test for Antigen antibody Interaction**" for B.Sc. III Students was organised by the department of Zoology on March 26, 2022. In this workshop 19 students participated and learned the double diffusion method for antigen-antibody interaction. The workshop was organized by Dr. Umarani Agrawal and Dr. Anuradha.



**Hands-on Training workshop on Enzyme Linked Immunosorbent Assay (ELISA):** Department of Zoology organised a hands-on training workshop on "Enzyme Linked Immunosorbent Assay (ELISA)" for B.Sc. 3<sup>rd</sup> year students under the agies of DBT star college scheme on September 30, 2022. The Convener of Zoology Department, Dr Neerja Kapoor told us that CMP degree College has become the first college of University of Allahabad to train undergraduate students in this advanced technique of biomedical importance which is used to detect many diseases including hepatitis and AIDS and this a



(A Constituent P.G. College, University of Allahabad) Under the Strengthening Component of DBT Star College Scheme



Website: www.cmpcollege.ac.in

matter of great pride for Zoology Department that we are organizing this event using our own resources.

Twenty students were selected for this workshop out of a large number of applicants. This workshop was jointly organized by Dr. Manoj Kumar Jaiswal, Dr. Ashish Kumar Mishra and Dr. Charu Tripathi. The Event Convener, Dr. Vandana Mathur asserted that the department has planned more such events for the benefit of our students and we are likely to open this learning opportunity for students of other colleges and universities. Prof. Ajay Prakash Khare, Principal, CMP Degree college also lauded the efforts put forth by the department of zoology and assured every possible help from his office for furthering the academic atmosphere of the Department

**First Session:** In the first session, Dr. Charu Tripathi, Assistant Professor, Department of Zoology, delivered a lecture on the Basics of ELISA. She discussed in detail the principles, types, and uses of ELISA.

**Second Session:** In the second session, Dr Ashish Kumar Mishra, Assistant Professor, Department of Zoology, demonstrated and gave hands-on training on the ELISA to participants. The students were divided into two batches for the training. They use the Hepatitis B detection ELISA kit to learn the technique.





(A Constituent P.G. College, University of Allahabad) Under the Strengthening Component of DBT Star College Scheme



Website: www.cmpcollege.ac.in



व्यावहारिक प्रशिक्षण कार्यशाला आयोजित सीएमपी डिग्री कालेज में जंतु विज्ञान विभाग की ओर से बीएससी तुतीय वर्ष के छात्रों के लिए डीबीटी स्टार कालेज के तत्वावधान में शुक्रवार को 'एलाइजा' पर व्यावहारिक प्रशिक्षण कार्यशाला का आयोजन किया। विभाग की संयोजिका डा. नीरजा कपूर ने बताया कि सीएमपी डिग्री कालेज बायोमेडिकल की इस उत्रत तकनीक में स्नातक छात्रों को प्रशिक्षित करने वाला इलाहाबाद विश्वविद्यालय का पहला कालेज बन गया है। इस तकनीक का उपयोग हेपेटाइटिस और एड्स सहित कई बीमारियों का पता लगाने के लिए क्या जाता है। इस तकनीक का उपयोग हेपेटाइटिस और एड्स सहित कई बीमारियों का पता लगाने के लिए क्या जाता है। डा. कपूर ने बताया कि यह प्राणी विज्ञान विभाग के लिए बहुत गर्व की बात है कि हम अपने संसाधनों का उपयोग करके इस कार्यक्रम का आयोजन कर रहे हैं। इस कार्यशाला के लिए बड़ी संख्या में प्राप्त आवेदन में से २० छात्रों का जायसवाल, डा. आशीष कुमार मिश्र एवं डा. चाह त्रिपाठी ने संयुक्त रूप से किया। कार्यक्रम की संयोजक डा. बंदना माथुर ने कहा कि विभाग ने छात्रों के लाभ के लिए इस तरह के और तार्यक्रमों की योजना बनाई है। उन्होंने कहा कि हम अन्य कालेजों और विश्वविद्यालयों के छात्रों के अन्नरा साथी के लाभ के लिए इस तरह के आर वार्यका की ही। कालेज और विश्वविद्यालयों की खाजा को भा या जि स्वर्हा की हा कालेज और विश्वविद्यालयों की खाजा का के प्राया की सराहना की। उन्होंने का कि विभागा के शैक्षणिक माहौल को आगे बढ़ाने के लिए हर संभव मदद दी जाएगी।

'एलाइजा' पर

#### Hands-on Workshop on Food Safety and Nutritional Security:

Three days hands-on workshop was organized by the Department of Zoology, Botany and Chemistry under the agies of DBT star college scheme on August 17 to 19, 2023.

The students have been given training on estimation of following:

- Macromolecules from food material.
- pH and NaCl from food material.
- Food Adulterant and their detection in food.
- Micronutrients such as vitamins in food.
- Dietary fibres in food sources.

The President/Chief Guest of the workshop was Dr. Jagdamba Singh, Ex-Head, Department of Chemistry, University of Allahabd. Dr. Sujit Kumar Singh was Training Officer and Dr. Shankar Suvan Singh was Keynote speaker. Prof. Jagdamba Singh addressed the importance of diet for human beings since it meets two basic needs: nutrients and energy. He told that Rice should be regarded as the best source of protein. He encouraged students to cherish life by eating home-cooked meals. Finally, he stated that 70% of diseases arise from the consumption of contaminated water and that we should be cautious of our health.





(A Constituent P.G. College, University of Allahabad) Under the Strengthening Component of DBT Star College Scheme

Website: www.cmpcollege.ac.in



Dr. Shankar Suwan Singh, the keynote speaker, emphasised on the quality control of food products, their nutritional safety, and food security. He emphasised that milk adulteration owing to water, starch, gelatin, urea, melamine, and other substances can be detected using the lactometer technique and calculated using the freezing point method to ensure the purity of milk. Er. Sujit Kumar Singh briefed the audience about the three-day training programme and its implications for the future. Quality control is the fundamental requirement for ensuring food security, on which the Indian government is firmly focused.



#### **Report: Day-02**

The second day of the three days Hands on -workshop commenced with great enthusiasm as participant continued their journey to delve deeper into the realm of ensuring food safety. Dr.Arti Gupta, Associate Professor, Department of Chemistry, welcomed the training officer, Er. Sujit Kumar Singh, resource person Dr.Madhulika Singh, distinguished faculty members and students.

#### **First Session:**

In the first session Er. Sujit Kumar Singh an accomplished expert in the field of food safety took the stage to illustrate the significance of understanding and implementing effective food safety measure to safe guard public health. Dr.Madhulika, a distinguished expert in the field of food analysis, demonstrated the first experiment; the aim of the experiment was to determine the acidity in beverages. The sample chosen for acidity measurement was milk. The acidity of the milk sample was calculated to be 0.3 %, which falls within the acceptable range of 0.2 to 0.6 % acidity for milk.

#### Second Session:

In the second session Dr.Madhulika and team introduced students with another experiment on "Determination of % of NaCl content in a curd sample" following the demonstration, the student were divided into groups and provided with curd sample to perform the experiment



OUOT RAMI TOT ARBORES

(A Constituent P.G. College, University of Allahabad) Under the Strengthening Component of DBT Star College Scheme

Website: www.cmpcollege.ac.in

themselves. Dr.Madhulika's team offered guidance and support as the students carried out each step of the experiment, ensuring accuracy and safety.

#### **Third Session:**

During the third session, students were introduced to the experiment focused on the "Analysis of moisture and ash content in flour and bread samples". The demonstration aimed to familiarize students with the procedure involved in sample preparation, determination of moisture content and quantification of ash content. After the demonstration, students were given the opportunity to perform the experiment themselves. This hands-on experiment allowed students to better understand the practical aspects of moisture and ash content analysis, with practical exposure to techniques used in food analysis and to emphasize the significance of measuring moisture and ash content in food products.

#### **Report: Day-03**

#### **First Session:**

The third and final day of the three days Hands on- Workshop, jointly organized by the Department of Botany, Chemistry and Zoology (17<sup>th</sup>-19<sup>th</sup> Aug, 2023) under the aegis of DBT Star Scheme commenced with an engaging session led by Dr.Madhulika Singh and her team. The primary focus of the session was on the experimentation and analysis of vitamin content in various fruit juices. The session concluded with a hands-on demonstration where participants had the opportunity to observe the experimental procedure under the guidance of the experts. Overall the session on the determination of vitamin content in fruit juices provided participants with valuable insight into the scientific methodology and significance of accurate vitamin measurement.

#### Second Session:

The second session of the final day of the workshop on food safety and nutritional security featured a significant interaction between the participants and three distinguished food safety officers, Mr. Rajesh Kumar Yadav (Divisional Food Safety Officer), Dr. Anjali Srivastava(Food Safety Officer) and Mr. P.K. Rai (Food Safety Officer) from Food Safety and Drug Administration, Uttar Pradesh.

Dr.SaritaSrivastava commenced the session by introducing the three esteemed guests.

Mr. Rajesh Kumar, an esteemed expert in the field of food safety addressed the students. He appreciated the students for their eagerness of being conscious about food safety in their daily lives. Furthermore, Mr. Rajesh shared insight into the exciting and evolving career opportunities within the realm of food safety. Dr. Anjali Srivastava discussed the multifaceted nature of food safety, highlighting its relevance across various stages of food supply chain. Mr. P. K. Rai introduced students with the food safety and connect app. These offices arrived with a mobile testing laboratory which provided students with a unique opportunity to engage in practical testing of various food samples. Awareness was made by checking the substances mixed in milk like urea, detergent, sucrose etc, on the spot by mobile laboratory.

#### Third Session:

The third and the final session of the day in the workshop on "Food Safety and Nutritional Security" featured yet another enlightening demonstration led by Dr.Madhulika Singh and her team. The focus of this session was on the estimation of crude fiber content in food products, highlighting its significance in assessing the nutritional quality of various





(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: www.cmpcollege.ac.in

substances. The combination of expert presentation, interactive session and practical demonstration ensured a holistic learning experience, leaving participants inspired and empowered to contribute positively to the realm of food safety and nutrition.

#### **Valedictory Function:**

The three days workshop culminated with the valedictory function. The function was over seen by Dr.Hemlata Pant, who adeptly managed the entire proceedings. During this event Dr. Vishal Srivastava provided an overview of all the activities that took place over the three days workshop on "Food Safety and Nutritional Security". Dr.BabitaAgarwal expressed gratitude to the guests, faculty members and the participants in the form of vote of thanks. Subsequently, certificates were distributed to acknowledge the participants active involvement in the seminar. With this final event, the workshop came to a fulfilling and successful conclusion.

ty of Allahaba

Vaiswal

**Departmental Coordinator** 

Dr. Manoj Kumar Jaiswal

Dr. Vinita Jaiswal

Convener

Coordinator, DBT Star College

Dr. Sarita Srivastava