Report on Analytical training on HPLC and GC Instruments for Final Year B. Sc Forensic Sciences Students

Date: 07 September, 2023

Time: 10:00 AM-12.30 PM

Venue: JSS College of Pharmacy, Mysuru

Coordinated by: Dr. B.M. Gurupadayya, Professor, & Head, Department of Pharmaceutical

Chemistry

Demonstrated by:

i. **Hemanth Vikram P. R, Ph.D. scholar** – HPLC expt. on High-Performance Liquid

Chromatography Identification and Separation of Enantiomers

ii. Kalyani, PhD scholar-GCExpt. on Estimation of Eugenol in Clove Extract by

Gas Chromatography

Today's training sessions, conducted for final year B. Sc Forensic Sciences, JSS Medical

College & Hospital, Mysore students featured the demonstration of High-Performance Liquid

Chromatography (HPLC) and Gas Chromatography (GC) instruments. These sessions were

organized and executed under the guidance of Dr. B.M. Gurupadayya.

Overview of the Training Sessions:

The training sessions commenced with a stimulating lecture by Dr. B.M. Gurupadayya, who

delivered an informative presentation on the fundamental principles of HPLC and Gas

Chromatography. His insightful lecture laid a strong foundation for the students, preparing

them for the practical demonstrations that followed.

Practical Demonstrations:

HPLC Instrumentation: We showcased the HPLC instrumentation. Provided an in-depth

demonstration of the HPLC instrument, explaining its various components, including the

pump, injector, column, detector, and data analysis software.

GC Instrumentation: We provided a detailed walkthrough of the Gas Chromatograph,

highlighting key features such as the injector, column, detector, and data analysis software.

Hands-on approach allowed the students to gain a deep understanding of GC.

Practical Experiment:

After the instrument demonstrations, the students had the opportunity to witness a live

practical experiment. They were guided through the entire process of sample preparation,

injection, separation, and data analysis using both HPLC and GC instruments. This practical

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exposure was invaluable for the students, as it bridged the gap between theoretical knowledge and real-world applications.

Key Takeaways:

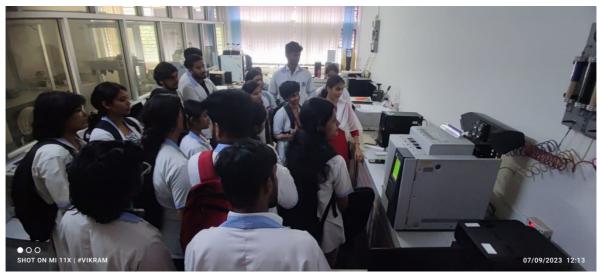
Today's training sessions were a resounding success, and the students gained the following key takeaways:

- ✓ A solid understanding of the fundamental principles of HPLC and GC.
- ✓ Hands-on experience with both HPLC and GC instruments.
- ✓ Exposure to real-world applications through practical experiments.
- ✓ Enhanced analytical skills and confidence in operating these instruments.

We would like to express our gratitude to the college management for their support and encouragement in organizing such valuable training sessions. We are confident that the knowledge gained today will benefit students in their academic pursuits and future careers in forensic sciences.



Mr Hemanth providing the training on HPLC instruments



Ms. Kalyani provided the training on GC instruments



Objectives of the training are presented to the B.Sc Forensic students by Dr B M Gurupadayya