

## **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

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