











# TWO-WEEK SKILL DEVELOPMENT TRAINING PROGRAM ON ADVANCED ANALYTICAL TECHNIQUES AT CENTRAL INSTRUMENTATION FACILITY (CIF)

**ORGANIZES** 

DEPARTMENT OF CHEMISTRY

UNDER THE AEGIS OF

INTEGRAL CENTRE OF EXCELLENCE FOR
INTERDISCIPLINARY RESEARCH (ICEIR)

**DATE: OCTOBER 8 TO 18, 2025** 





# About the Training Program:

This 2-week hands-on skill development training is designed to enhance the analytical and research skills of undergraduate and postgraduate students. The focus is on High-Performance Liquid Chromatography (HPLC), Liquid Chromatography–Mass Spectrometry (LC-MS), and Inductively Coupled Plasma–Mass Spectrometry (ICP-MS). The program includes theory sessions on principles, instrumentation, and applications, coupled with practical demonstrations on sampling, basic operation, and data handling. Participants will gain exposure to real-world case studies, method development strategies, and troubleshooting approaches. The training also emphasizes good laboratory practices (GLP), data interpretation, and report preparation. By the end of the program, students will acquire both conceptual clarity and hands-on expertise, preparing them for advanced research and industry applications. The program aligns with the United Nations Sustainable Development Goal (SDG) 4: Quality Education, by fostering advanced scientific learning and skill development. It also supports the national vision of Skill India and Viksit Bharat Abhiyan by empowering youth with future-ready technical competencies.

## Training Highlights & What's Inside?

- Engaging theory sessions on principles, instrumentation & applications
- · Live demonstrations: sampling, operation & data handling
- · Exposure to real-world case studies & troubleshooting
- · Emphasis on Good Laboratory Practices (GLP)
- · Data interpretation, method development & report preparation

## **Program Structure**

## **Week 1 – Theory Sessions**

- Fundamentals of HPLC, LC-MS, ICP-MS
- Instrumentation details & working principles
- Real-world applications

## Week 2 - Practical Sessions

- Hands-on training on sample preparation
- Demonstration of instrument handling
- Basic operation and data interpretation

# Who Can Participate?

# UG/ PG Students, Research scholar from science, engineering, pharmacy and medical science

# **Outcome & Benefits to Participants**

- Conceptual clarity + direct hands-on exposure to state-of-the-art instruments (HPLC, LC-MS, ICP-MS) to excel in research & industry applications
- · Blend of theoretical knowledge and practical experience
- · Certificate of Completion from Integral University
- · Skill enhancement for research and industry readiness

#### **REGISTRATION DETAILS IMPORTANT DATES**

Last Date of Registration: October 04, 2025

# **REGISTRATION FEE**

For Integral University UG/PG/ Research Students: INR 1000/-

For students from outside: INR 2000/-

# **About the Department of Chemistry**

The Department of Chemistry at Integral University, a distinguished institution with a rich legacy dating back to 1998, coinciding with the establishment of Integral Institute of Technology, and subsequently evolving into the full-fledged Integral University in 2004. The department is characterized by a dynamic community comprising inspiring educators, motivated students, and accomplished researchers.

The Department administers undergraduate and postgraduate programs in Industrial Chemistry and Chemistry, accommodating an intake of 40 students. Our commitment to academic excellence is reflected in the successful placement of the majority of our graduates within industries in India and overseas. Additionally, a select cohort of alumni have embarked on research careers at esteemed institutes and universities globally. Furthermore, the Department plays a pivotal role in providing supplementary instruction in chemistry to B.Tech. students across various branches, enriching their academic pursuits and fostering interdisciplinary learning.

# Integral Centre of Excellence for Interdisciplinary Research (ICEIR)

Integral University is committed to state-of-the-art facility for research and collaboration and catalyses diverse scholarly outputs including quality publications in reputed journals, books and book chapters, patents and extramural research grants. The university has created the Integral Center of Excellence for Interdisciplinary Research (ICEIR) in approximately 1500 sqM laboratory space equipped with modern infrastructure for research and innovation for interdisciplinary research. The Center has a Central Instrumentation Facility (CIF) housing several sophisticated analytical instruments for the researchers of the university. The CIF also offer services for outside researcher at nominal charges to meet the consumables and other operational charges.

Central Instrumentation Facility (CIF) of ICEIR comprises instruments facilities for Integral



Laboratory for Chemical Research (IL-CAR) and Integral Laboratory for Biological analysis (IL-BAR). The services are available for university research scholars as well outside researchers of

# **REGISTRATION LINK**

https://www.iul.ac.in/frmAdvProgramRegistration.aspx?id=227&n =Skill-Development-Training-On-Advanced-Analytical-Techniques

Registration will be done on first come, first serve basis. 'Attendance is compulsory in each session.

SCAN QR CODE FOR REGISTRATION















