

## COURSES OFFERED

# HANDS-ON ANALYTICAL TECHNIQUES



## ADD ON / VALUE ADDED CERTIFICATE COURSES

**2023-2024**

Our Hands-on Analytical Instruments Training program provides pharmacy students with the flexibility to enhance their academic experience by enrolling each academic year, with the option to take one module per semester. This approach allows students to deepen their expertise in FTIR/ATR and UV-Visible Spectroscopy, expand their practical skills, and align their learning with their career goals. The program is designed to offer a comprehensive and adaptable educational experience in preclinical research.

### COURSE OBJECTIVES

- To learn to analyze APIs Using FTIR/ATR and UV-Visible Spectroscopy.
- To understand and Apply Spectrofluorimetry Techniques.
- To Familiarize with HPLC Instrumentation and Application.

### COURSE OUTCOMES

- Expertise in FTIR/ATR and UV-Visible Spectroscopy.
- Proficiency in Spectrofluorimetry.
- Competence in HPLC Techniques.

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# COURSE MODULE

## INSTRUMENTS TRAINING SYLLABUS

Sr. No.	Name of experiment	Type of Technique	Hours	Resource Person
	Assay of API by Spectrofluorimetry	Spectrofluorimetry	04	Prof. Sujata P. Dudhe
	To study the effect of quencher on Quinine hydrochloride	Spectrofluorimetry	04	Prof. Sujata P. Dudhe
3	Demonstration of HPLC instrument	HPLC	03	Prof. Prashant Unde
4	To determine the concentration of an unknown solution by using HPLC	HPLC	04	Prof. Prashant Unde
	Demonstration of FTIR/ATR instrument	FTIR/ATR	03	Prof. Shankar S. Yelmame
6	To scan two to three API by FTIR/ATR and exercise of function group identification	FTIR/ATR	04	Prof. Shankar S. Yelmame
	To perform Specificity, Linearity and precision by using UV-Visible spectroscopy	UV-Visible spectroscopy	04	Prof. Kamlesh Dandagvha
	To determine the Lambda max of AP and to perform the assay of the tablet by using UV-Visible spectroscopy	UV-Visible spectroscopy	04	Prof. Kamlesh Dandagvha

### CHIEF PATRON

**Hon'ble Dr. Sandip N. Jha**  
**Chairman**  
 Sandip Foundation

### PATRON

**Prof. Pramod Karole**  
**Academic Facilitator**  
 Sandip Foundation

### CONVENER

**Dr. Laxmikant B. Borse**  
**Principal**  
 SIPS, Nashik

### COORDINATOR

**Mr. Prashant Unde**

### REGISTRATION DETAILS

**Mr. Shankar Yelmame**  
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