Date: 06-04-2022

NOTICE

All the registered students for certificate course entitled "Analytical Techniques, Data Processing and Drug Design" are hereby informed to attend the classes as per following schedule.

Course Code: RSCP/22/PHARMCHEM 01

Tentative Schedule for Certificate Course 2021-22

"ANALYTICAL TECHNIQUES, DATA PROCESSING AND DRUG DESIGN"

Date	MODULES			
	Time			Total Hrs
	10:30am to 11:30am	11:30am to 12:30pm	12:30pm to 1:30pm	30
09-04-2022	Introduction to analytical techniques (Dr VSB)			03
11-04-2022	HPLC- Basics and Interpretation of Graph (Prof SPS)			03
12-04-2022	UV (Basics and Interpretation of Graph) (Prof SPS)			03
13-04-2022	FTIR (Basics and Interpretation of Spectra) (Dr.VPS)			03
15-04-2022	NMR (Basics and Interpretation of Spectra) (Dr.VPS)			03
16-04-2022	MASS (Basics of Interpretation of Spectra) (Dr.VSB)			03
18-04-2022	CADD (Basic theory) (Dr. DKL)			03
19-04-2022	CADD (Demonstration) (Dr. DKL)			03
20-04-2022	Experimental methods of CADD (Dr. DKL and Prof PRD)			03
21-04-2022	Experimental methods of CADD (Dr. DKL and Prof PRD)			03

RAJARSHI SHAHU COLLEGE OF PHARMACY ★ BULDANA ★

Principal
Principal
Rajarshi Shahu College of Pharmacy,
Malvihir, Buldana.
(Dr. S. P. Jain)

Dr. V. S. Borkar
HOD; Pharm. Chem.

1. **Title of the Course:** Analytical Techniques, Data Processing and Drug Design
2. **Course Code: RSCP/22/PHARMCHEM 01**
3. **Course Mentors:** Dr. Vijay S. Borkar, Dr. Vijay P. Sonar, Dr. Dipak K Lokwani, Mr Satish P. Shelke, Mr. Parameshwar R. Devhare, Mr. Rushikesh G. Diware
4. **Target Group:** Graduation, Post- Graduation and Ph. D research Scholars.
5. **Fee Structure:** No Entry Fees
6. **Duration of the course:** 09 APR 2022 - 21 APR 2022
7. **Days and time of the course :** Monday to Friday 10:30 AM to 1: 30 PM
8. **Eligibility of the Course:** Open for B Pharm. Final, M Pharm., and Ph. D research Scholars.
9. **Objectives:** After completion of the course, the participants will be able to
    - **a.** Know and understand the basic principles and working of the analytical instruments.
    - **b.** Interpret the analytical data from IR, UV, NMR and Mass spectra.
    - **c.** Understands Computer Aided Drug design and Process the Data.
    - **d.** Handling of data using Excel, and other software
10. **Scope:** In pharmaceutical analysis it is important to understand sophisticated analytical instrument working and interpretation of the obtained data by the students, scientist and faculty members. This training course will address these aspects and will help to enhance the understanding about sophisticated instruments, Interpretation of analytical data, Technical skill in reading data handling of spectroscopic data recent developments in the field, and Computer aided Drug design
11. **Uniqueness:** The course will impart hands on training on various advanced IR techniques, HPLC handling and calibration and Drug design based on computer application. The training will be given by the subject experts.
12. **Learning Outcomes of the Course:** After completing this course students will be able to know the
    - **a.** Basic principle and working of the instruments such as UV, IR, NMR, HPLC, Mass Spectroscopy
    - **b.** Interpret the analytical data from spectra.

c. Qualitative and quantitative analysis of drugs substances and Drug products using these techniques.

d. Able to design drug using CADD

13. **Syllabus:**

a. Chromatography: HPLC Theory, Principal and data processing and Different techniques of HPLC and Advanced HPLC.

i. Demonstration on HPLC Handling and calibration, Open lab 7.2 software
ii. Illustration on Mobile Phase Preparation, Column selection
iii. Basics of Method HPLC method development for assay and Related substances test
iv. Basics of Impurity profiling on HPLC

b. Spectroscopy: Theory Principle and data processing for

i. IR and FTIR: Interpretation of IR spectra
ii. USP and Ph. Eur. General Chapters for FTIR including 197K, 197M, 197N
iii. Sampling techniques in FTIR
iv. Demonstration on attenuated total Reflectance system
v. Theory, Principle and data processing of UV Spectroscopy
vi. Multicomponent analysis by UV including Vierodt's method

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RAJARSHI SHAHU COLLEGE OF PHARMACY BULDHANA

Rajarshi Shahu College of Pharmacy
Journey Towards Academic Excellence

Organized
Certificate Course on

ANALYTICAL TECHNIQUES, DATA PROCESSING AND DRUG DESIGN

Eligibility: B Pharm Final year, M Pharm and PhD Scholar

Date: 09 APR to 21 APR 2022

Key Skills

- Handling and Interpretation of IR Spectra
- HPLC Handling and Data Interpretation
- Basics and Interpretation of NMR, Mass Spectra
- Computer Aided Drug Design (CADD)
- Data Processing using Various Software

Last Date for Registration
07 APR 2022

No Registration Fee

Venue
RSCP Seminar Hall

Coordinator
MR. Rushikesh G. Diware
Asst. Professor
RSCP Budhana

Convener
DR. Shirish Jain
Principal RSCP Buldana

Rajarshi Shahu College of Pharmacy
Journey Towards Academic Excellence

Certificate Course on

ANALYTICAL TECHNIQUES, DATA PROCESSING AND DRUG DESIGN

1. Title of the Course: Analytical Techniques, Data Processing and Drug Design
2. Course Mentors: Dr. Vijay S. Borkar
   Dr. Vijay P. Sonar
   Dr. Deepak K. Lokwani
   Mr. Satish P. Shelke
   Mr. Parameshwar R. Devhare
   Mr. Rushikesh G. Diware
3. Target Group: Graduation, Post- Graduation and PhD Scholar
4. Fee Structure: No Entry Fees
5. Duration of the course: 09 APR 2022 - 21 APR 2022
6. Days and time of the course : Monday to Friday 10:30 AM to 1: 30 PM
7. Eligibility of the Course: B Pharm Final, M Pharm and PhD Scholar
8. Objectives: After completion of the course, the participants will able to
   a. Understand the basic principle and working of the analytical instruments
   b. Interpret the analytical data from IR UV, NMR and Mass spectra.
   c. Analyze various drugs in single and combination dosage forms.
   d. Get Hands-on-training sessions of UV, HPLC and IR
   e. Understands Computer Aided Drug design
   f. Handling and processing of analytical data using software

9. Scope: In pharmaceutical analysis it is important to understand sophisticated analytical instrument working and interpretation of the obtained data by the students, scientist and faculty members. This training course will address these aspects and will help to enhance the understanding about sophisticated instruments, Interpretation of analytical data, Technical skill in reading data handling of spectroscopic data recent developments in the field, and Computer aided Drug design

Website: https://www.rscp.ac.in
Email: rscp.tpo@gmail.com

10. Uniqueness: The course will impart hands on training on various advanced IR techniques (197K), HPLC handling and calibration and Drug design based on computer application. The training will be given by the subject experts

Schedule

Date	THEORY/PRACTICAL			
	Time			Total Hrs
	10:30am to 11:30am	11:30am to 12:30pm	12:30pm to 1:30pm	30
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- Interpret the analytical data from spectra.
- Qualitative and quantitative analysis of drugs substances and Drug products using these techniques.
- Able to design drug using CADD

- Registration and Certificates: Prof. R. G. Diware
- Feedback: Dr. V. P. Sonar
- Date of commencement: 09-APR-2022 to 21-APR-2022