





"Dissemination of Education through Knowledge, Science and Culture"- Shikshanmaharshi Dr. Bapuji Salunkhe Shri Swami Vivekanand Shikshan Sanstha, Kolhapur

PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA TASGAON DIST- SANGLI

416 312 (Maharashtra) Phone No: (02346)250665

(Affiliated to Shivaji University, Kolhapur)

NAAC Reaccredited **B**⁺⁺ with CGPA **2.76** AISHE: **C11096**

College email Id : pdvptas.san@gmail.com College Website : pdvpmtasgaon.edu.in

Report on

Seven Days Online Course on

Soft Skills in Chemistry Practicals

submitted to IQAC,

Padmabhushan Dr. Vasantraodada Patil Mahavidyalaya, Tasgaon

22nd February to 01st March 2021

Course Details

Title of the Programme : Online Course on Soft Skills in Chemistry Practicals

Organizing Department: Department of Chemistry

Duration : 22nd February to 01st March 2021

LMS : Google Classroom

Participants : UG and PG Chemistry students

No. of Participants : 582

: Female : 342 Male : 240

Highlights of the Course

- * One week Online Course
- * Conducted on Google Classroom
- * Seven modules based on basic practical techniques
- * Video, notes, quiz and discussion per module
- * 582 student participants
- * Certificates issued with grades after compilation of results

Acknowledgement

- We are very much thankful to **Principal Dr. Milind Hujare** for constant support and encouragement to conduct this course.
- ➤ We are thankful to all faculty members, for active participation in preparation of modules and non teaching staff of Chemistry Department for their support during preparation and while conducting the course.

Organizing Committee

Prof. Dr. Suresh S. Patil

Head of Chemistry Department

Dr. Swati D. Jadhav

Course Coordinator

Dr. Megha U. Patil

Course Organizer

Learning outcomes

Soft Skills in Chemistry Practicals

- * To Learn the laboratory skills and safety measures to be followed while working in the laboratory
- * To Learn how to prepare solutions of various concentrations and develop soft skill for titrations
- * To learn correct method for boiling point and melting point
- * To enhance the skill in recrystalliazation and TLC technique
- * Development in soft skills in basic techniques will enhance the total skill while working in

Introduction to the course

Chemistry practicals always need skills alongwith theoretical knowledge, so enhancing practical skills of students is always remain a challenge for Chemistry teachers. Students studying at undergraduate level as well as postgraduate level need to learn some new practical skills and to enhance the skills.

In view of this, we have decided to design a course to develop soft skills in Chemistry students of undergraduate and postgraduate level. For this, it was needed to select some basic techniques required while doing day to day praticals. Taking into consideration basic requirements, a course was designed.

This course is conducted by using Google Classroom as Learing Management System. Chemistry students have joined the Google Classroom and attended the course by studying the modules displayed daily on Google Classroom.

Due to pandemic situation, there was delay in starting practical classes in this academic year. This course was conducted online just before the commencement of practical classes, as the students will get benefited well on time.

Design of the Course

This course included Seven modules:

> Safety Dos and Don'ts in Chemistry Laboratory

Safety Dos and Don'ts, which the students have to follow while working in the Chemsitry Laboratory.

Preparation of Standard Solution

Various concentration terms and methods of preparation of solutions with various concentration terms, the procedure of preparation of standard solution, weighing, dissolution, dilution.

Standardization of Stock Solution

Standardization of supplied solution using a standard solution, demonstration of titration method.

Determination of Melting Point

The method of melting point determination including all basic steps like capillary sealing, filling of compound in capillary, heating paraffin oil, observation of exact melting point.

> Determination of Boiling Point

The method melting point determination including all basic steps like use of fusion tube for filling of liquid, heating of paraffin oil, observation of exact boiling point.

> Purification of Organic Compound by Recrystallization

Demonstration of recrystalliazation in detail, choice of solvent, dissolution of sample, filtration and crystallization.

> Separation of Components by TLC

Demonstration of TLC including suitable solvent system, development of chromatogram, separation of components and identification of components.

Preparations before the course

Videos for the course were prepared in the Chemistry Laboratory by the faculty members and edited afterwards to final videos.



Prof. Dr. Suresh S. Patil

Safety Dos and Don'ts in Chemistry Laboratory



Dr. Swati D. Jadhav

- > Preparation of Standard Solution
- > Standardization of Stock Solution



Dr. Megha U. Patil

Determination of Melting PointDetermination of Boiling Point

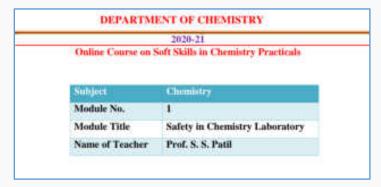


Dr. Sachinkumar S. Shinde

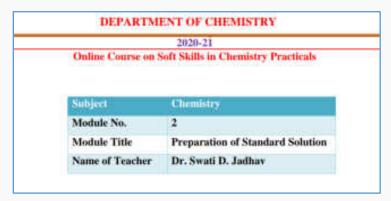
- Purification of Organic Compound by Recrystallization
- > Separation of Components by TLC

Modules

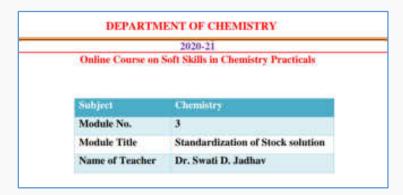
* Module 1. Safety Dos and Don'ts in Chemistry Laboratory



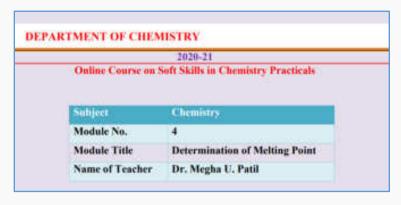
* Module 2. Preparation of Standard Solution



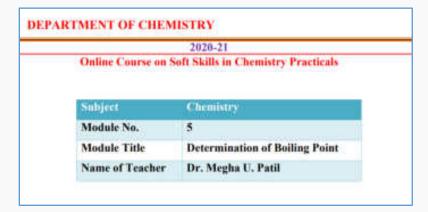
* Module 3. Standardization of Stock Solution



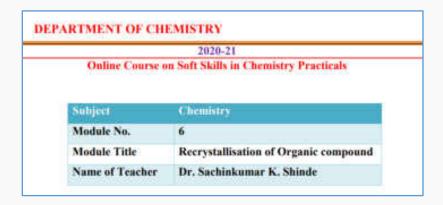
***** Module 4. Determination of Melting Point



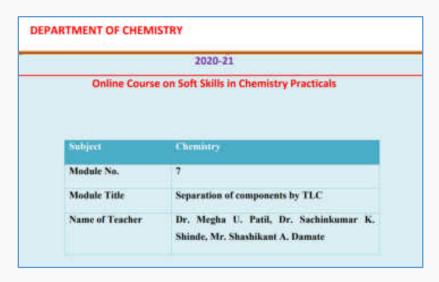
Module 5. Determination of Boiling Point



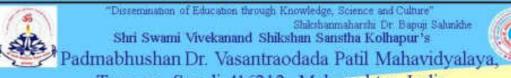
***** Module 6. Purification of Organic Compound by Recrystallization



Module 7. Separation of Components by TLC



Announcement of the course



Tasgaon, Sangli-416312, Maharashtra, India

(Affiliated to Shivan University Kolhapur)

DEPARTMENT OF CHEMISTRY

Online Course on Soft Skills in Chemistry Practicals

22nd February to 01st March 2021

☐ Course Outline

- Safety Dos and Don'ts in Chemistry Laboratory
- Preparation of Standard Solution
- > Standardization of Stock Solution
- Determination of Melting Point
- Determination of Boiling Point
- Purification of Organic Compound by Recrystallization
- Separation of Components by TLC

Dr. Milind S. Hujare Principal

Prof. Dr. Suresh S. Patil Head of the Department

Dr. Swati D. Jadhav

Course Coordinator Dr. Megha U. Patil

Course Organizer



Google Classroom

Click here to register

Last Date for Registration: 21st February 2021

Eligibility: UG and PG Chemistry students

Notice

"Dissemination of Education for Knowledge, Science and Culture" Shikshanmaharashi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha Kolhapur Padmabhushan Dr. Vasantraodada Patil Mahavidyalaya, Tasgaon

PG Department of Chemistry Notice

Date: 20/02/2021

Online Course on Soft Skills in Chemistry Practicals

All UG and PG Chemistry students are hereby informed that Online Course on Soft Skills in Chemistry Practicals is organized during 22nd February to 1st March 2021.

All the students should register for the course upto 21st February 2021. The course is free and compulsory for all.

Register the course by using the link provided in the Brochure. Join the WhatsApp group of your class immediately after the registration, using the link provided in Registration form.

The details of the course will be provided on WhatsApp groups.

If you have any query, contact

1. Dr. S. D. Jadhav 2. Dr. M. U. Patil

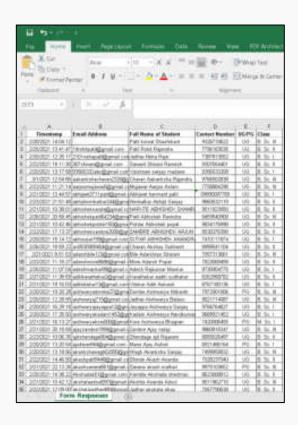
Prof. (Dr.) S. S. Patil

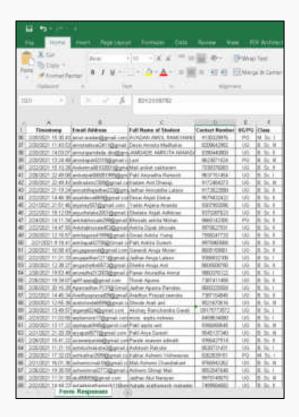
Head

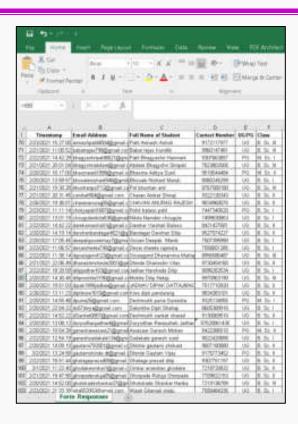
Registration by students

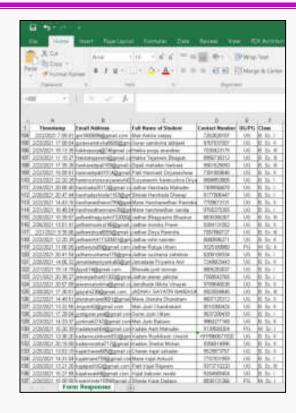
In all 582 students registered for the course using Google form provided in the Course Broucher.

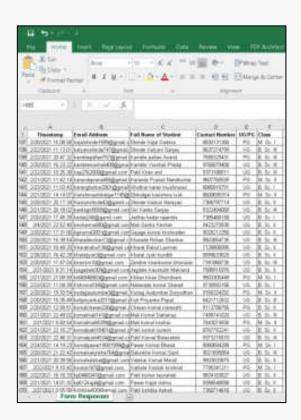


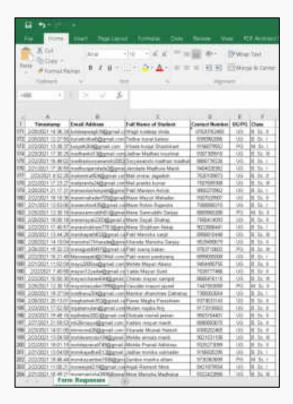


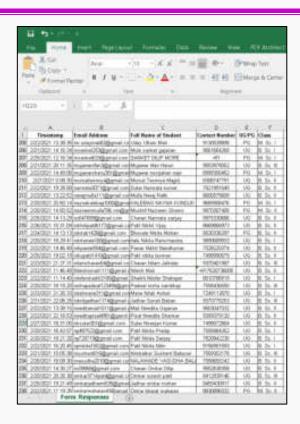


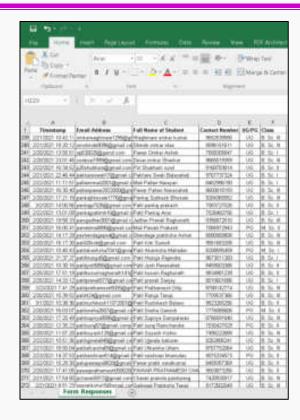


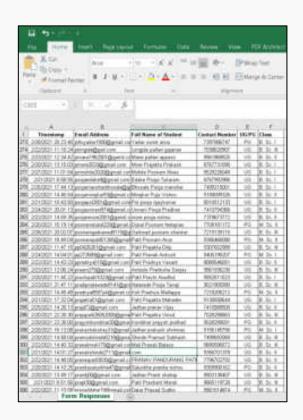


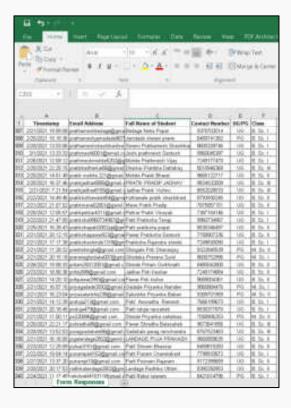


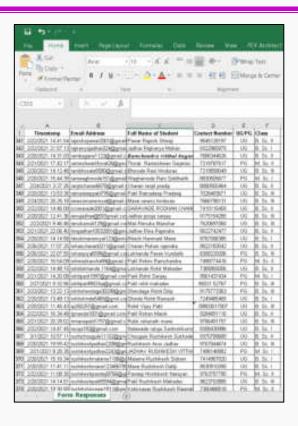




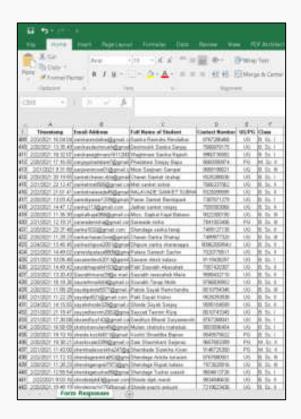




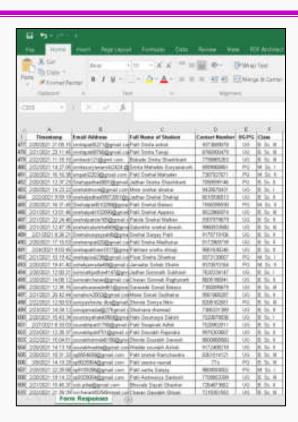


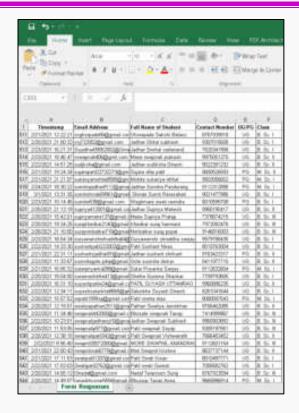


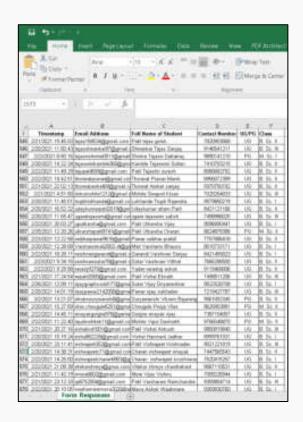


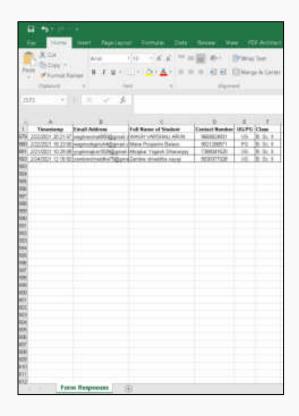








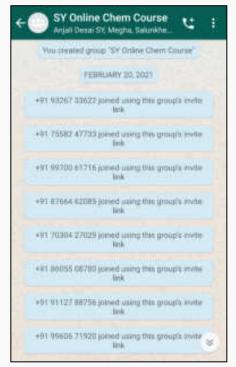




WhatsApp Groups

Different WhatsApp groups were prepared for the students as per class.









Google Classroom

The invitation link for the Online Course Google Classroom was communicated with the students on WhatsApp groups. Students joined the Classroom using this link.

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Shri Swami Vivekanand Shikshan Sanstha Kolhapur

Padmabhushan Dr. Vasantraodada Patil Mahavidyalaya, Tasgaon PG Department of Chemistry Notice

Date: 20/02/2021

Online Course on Soft Skills in Chemistry Practicals

All UG and PG Chemistry students who have registered for the **Online Course on Soft Skills** in **Chemistry Practicals** are hereby informed :

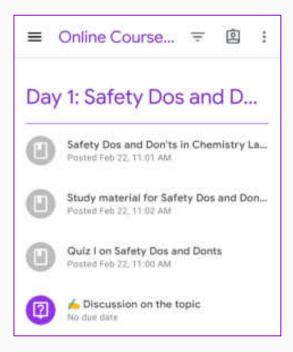
- ✓ All theory classes will continue on the same time.
- ✓ The course is online and will be conducted on Google Classroom.
- ✓ All the participants must join the Course Google Classroom using link/classcode
- $\textcircled{$\underline{\hspace{-0.1cm}}$} \underline{\hspace{-0.1cm}} \underline{\hspace{-0.1cm}$
- ☐ Classcode: mz5tfd4
- ✓ Everyday the study material of a topic will be displayed at 11.00 am on the classroom
- > A video based on the topic
- > Study material
- Quiz on the topic
- Discussion forum
- ✓ Everyday participants have to join the classroom
- ☐ Go to Classwork
- G Go to the Day
- ➤ Watch the video
- Read the study material
- > Solve the quiz
- > Post the comment
- ✓ The students have to complete the work daily.
- ✓ The certificates will be issued to the participants after successful completion of the course.

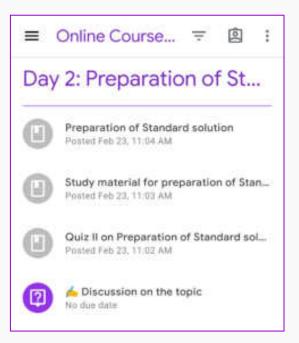
Dr. M. U. Patil Course Organizer Dr. S. D. Jadhav Course Coordinator

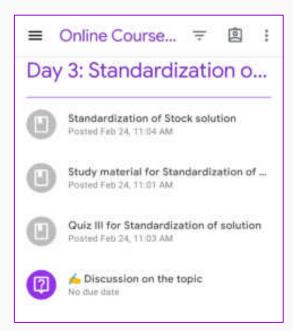


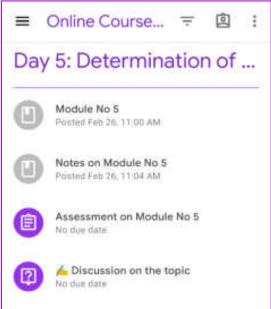
Commencement of the Course

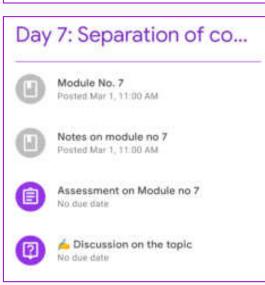
The modules were scheduled at 11.00 am every day during the course. Students were informed to visit the classroom and watch the video, read the material, solve the quiz and discuss their views.

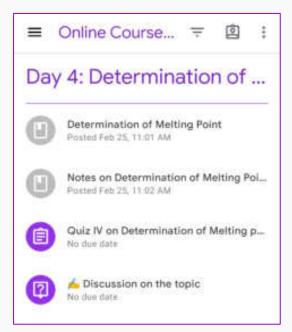


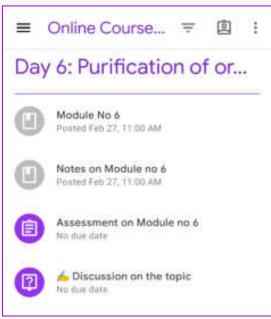






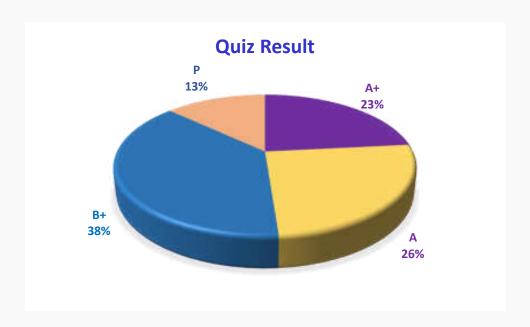


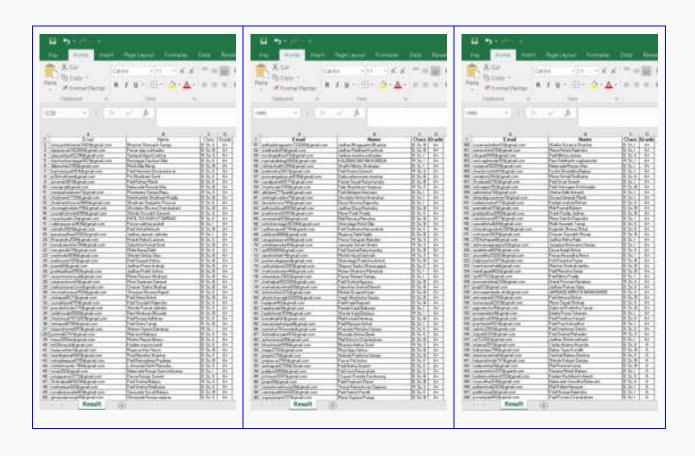


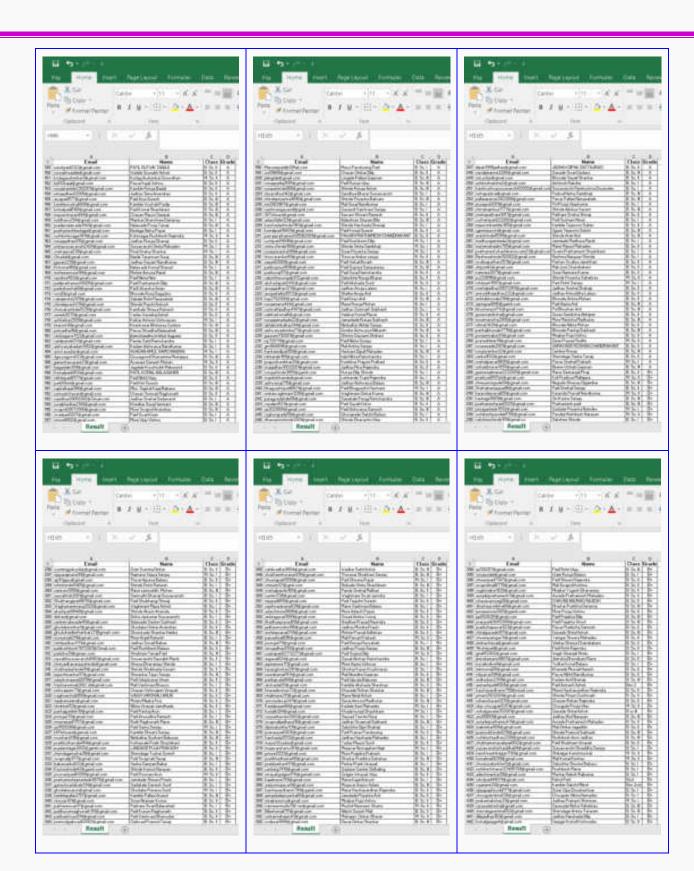


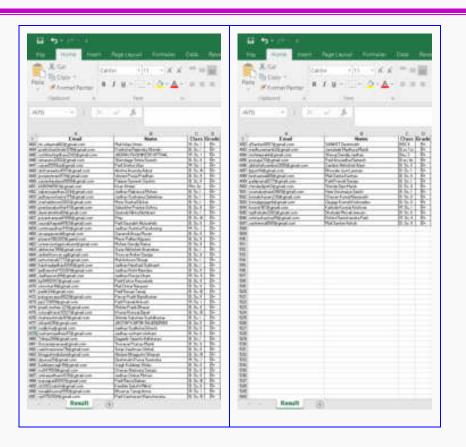
Quiz Results

Quiz results were compiled and analyzed. The students are graded as A+, A and B+.









Certificate



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Shri Swami Vivekanand Shikshan Sanstha Kolhapur's

Padmabhushan Dr. Vasantraodada Patil Mahavidyalaya, Tasgaon, Sangli, (MS), India-416312

Department of Chemistry



Certificate

Seven Days Online Course on

Soft Skills in Chemistry Practicals

This is to certify that Pawar Vijay Sukhadev Class B. Sc. III has successfully completed

Online Course on 'Soft Skills in Chemistry Practicals' conducted by Department of Chemistry,

Padmabhushan Dr. Vasantraodada Patil Mahavidyalaya, Tasgaon

during 22nd February to 01st March 2021 with A+ Grade

Batil

Dr. Megha U. Patil Course Organizer - Faller

Dr. Swati D. Jadhav Course Coordinator Bally

Prof. (Dr.) Suresh S. Patil Head, Dept. of Chemistry Dr. Milind S. Hujare

Principal

Report submitted by

Dr. Swati D. Jadhav

Course Coordinator