

**ONLINE VALUE BASED COURSE ON  
“CHEMICAL HANDLING AND LABORATORY  
SAFETY”**

**FOR UG AND PG STUDENTS OF CHEMISTRY**

**Duration : 14<sup>TH</sup> NOVEMBER – 5<sup>TH</sup> DECEMBER 2022**



**Open to: UG and PG students offering Chemistry**

**Online meeting platform: Zoom / Google Classroom**

**Registration fee: Nil**

**Last date for applying: 13<sup>TH</sup> November 2022**

**Organizer**

Department of Chemistry

SHRI SHIVAJI SCIENCE COLLEGE,

Shivaji Nagar, Morshi Road, AMRAVATI

Maharashtra - 444 603

Re-Accredited by NAAC with “A+ Grade” (Very Good) with a  
CGPA 3.42 (4 Cycle)

“College with Potential for Excellence”

Identified by DST, Govt. of India for FIST, SGBAU – as lead  
college, ISO 9001:2015 Certified College & nirf -2022 Rank Band :  
151-200.

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Web site: <http://www.shivajiscamt.org>

## About Shri Shivaji Education Society:

The Shri Shivaji Education Society, Amravati was founded by the great visionary & the first Union Agricultural Minister of Govt. of India late Dr. Panjabrao alias Bhausahab Deshmukh.

Shri Shivaji Education Society, Amravati is a premier educational institution of Central India with branches in all the districts of Vidarbha in Maharashtra. It has established more than 300 educational institutions which include schools, colleges, hostels, a hospital and other teaching and technical institutions.

In these institutions different courses are offered like Agriculture, Arts, Commerce, Bio-technology, Computers Science, Education, Physical education, Engineering, Horticulture, Information Technology, Law, Medicine, Micro-biology, Nursing, Forensic Science and the pure Sciences. It also runs a Polytechnic Institute for boys and girls at Amravati.

The Shri Shivaji Education Society has received different honours from State & Central government -

- **Dr. BabasahebAmbedkar'Dalit Mitra' Award (1993-94) by the Govt. of Maharashtra.**
- **Gadge Maharaj Memorial Award (1999-2000)**
- **Govt. of Maharashtra's "Best Administered Society" in the state with a cash award of Rs. 1 lakh (5 September, 2000)**
- **Leadership Award of Excellence in Education (Feb.11, 2011)**
- **Maharashtra Nirmata Award (May 2011)**

## About the Institution:

Shri Shivaji Science College, Amravati was established in 1969 by "Shri Shivaji Education Society, Amravati".

Our aim is to provide quality education and to equip our students with analytical insights, intellectual maturity, strength of purpose and willingness to work hard conforming to ethical values. To attract and develop talented and committed human resource and provide an environment conducive to innovation, creativity, team-spirit, and entrepreneurial leadership for the overall growth of the Country.

Ours is the first College in SGB Amravati University area to go for Accreditation by NAAC with "A+ Grade" with a CGPA 3.42 (4 Cycle), UGC Awarded Status of CPE (II Phase). Identified by DST, Govt. of India for FIST, SGBAU - as lead college, ISO 9001:2015 Certified College & nirf -2022 Rank Band: 151-200.

## Vision

To develop the institute as a centre of higher learning ever abreast with the expanding horizon of knowledge in the field of science and to facilitate transformation of students into good human beings, responsible citizen and competent professionals.

## **Mission**

- To provide quality education, equip them with analytical insights, intellectual maturity, strength of purpose and willingness to work hard conforming to ethical values.
- To be bridge between the rural-urban divide, taking the benefits of education to the poor and the marginalized, aiming at their empowerment.
- To ensure access to and equity in higher educational opportunity to all deserving and meritorious students with a preferential option for the poor and marginalized, irrespective of cast and creed.
- To attract and develop talented and committed human resource and provide an environment conducive to innovation, creativity, team-spirit and entrepreneurial leadership.

## **Salient Features**

- Sprawling campus with lush green garden / lawns.
- Central instrumentation facility (CIC) for researchers.
- Spacious and separate UG, PG and research labs with state of the art facilities.
- Rich central library with independent study rooms, fully atomized with NRC.
- State of the Art Computer laboratories with internet & Wifi connectivity
- Highly qualified and dedicated Staff.
- B.Sc. with 14 combinations, B.C.A. and M.Sc. in Chemistry, Botany, Bioinformatics, Computer Software, Physics, Zoology, Environmental Science.
- Two B.VoC. Courses (Forensic Sciences & Data Analytics).
- Five COC courses and one Innovative Course.
- Ph.D. facility in Chemistry, Botany, Geology, Mathematics, Physics, Microbiology, Statistics and Zoology.
- Best practices such as: Academic Audit, Feedback Mechanism, Cross Stock verification, Guardian Teacher Scheme, Continuous Evaluation and Dress Code.

## **Specific objectives of the CHLS-2022 - 23:**

- To impart the required knowledge of various most commonly used chemicals and apparatus.
- To impart necessary skills to handle hazardous chemicals.
- Theoretical knowledge of instruments used in laboratory.
- Practical knowledge of instruments used in laboratory.
- To operate and to maintain the laboratory equipments.
- Instrumentation, Calibration and their practical applications.
- How to handle the emergency while working in laboratory

### Expected outcome of CHLS-2022 - 23:

- Familiar with the handling laboratory apparatus.
- Understand the nature and handling of chemicals.
- Familiar to various solvents used in laboratory and industry
- Precaution to be taken during handling of hazardous chemicals.
- How to carry out the organic synthesis.
- Confidence to handle instruments such as- pH meter, potentiometer, colorimeter, spectrophotometer etc.

### Topics:

Sr. No.	Topic	Name of the Speaker
1	Introduction to laboratory safety	Dr. H. G. Wankhade
2	Introduction & Handling of glassware & Electronic Balance	Dr. N. A. Kalambe
3	Solution preparation & Precaution to be taken while performing titrations	Dr. H. G. Wankhade
4	Buffer Solution – Preparation & its Significance	Satish Kolteke
5	Indicators – Types, Role & Mode of Action	Santosh Rathod
6	Organic Compounds – Methods of Purification & Identification of General Physical Properties	Dr. N. R. Thakare
7	Melting Point & Boiling Point – Determination & Their Significance.	Dr. H. G. Wankhade
8	Acid and Bases – Introduction, Handling & Corrosive Properties.	Dr. P. R. Mandlik
9	Introduction & Handling of toxic metals used in laboratory	Dr. Rajendra Tayade
10	Solvents – Introduction Types & Handling	Dr. M. M. Khedkar
11	Handling of bromine in laboratory	Dr. A. P. Thakare
12	Handling of phenol and its derivatives in laboratory	Dr. Deval Deshmukh
13	Handling of benzene and its derivatives	Dr. V. R. Kinhikar
14	Precaution to taken during organic synthesis & use of Microscale Technique	Dr. S. A. Wadhal
15	Handling of gaseous evolution during synthesis	Zamir Shaikh
16	Introduction to Reagents	Ms. R. D. Bankar
17	Introduction to Electrodes & Salt Bridge	Dr. Y. S. Thakare
18	Handling and calibration of pH meter	
19	Handling and calibration of potentiometer meter	Dr. S. P. Ingoe
20	Handling and calibration of Refractometer	Dr. A. S. Burghate

21	Handling and calibration of spectrophotometer	<b>R. G. Sawarkar</b>
22	Handling and calibration of Polarimeter	<b>Dr. A. W. Wakode</b>
23	Handling and calibration of colorimeter	<b>S. A. Tandekar</b>
24	Solvent Extraction & Separation Techniques	<b>Dr. V. B. Khobragade</b>
25	Study of Physicochemical Parameters	<b>Dr. Nilesh Kadu</b>
26	Thermal Analysis	<b>Dr. N. H. Bansod</b>
27	Gravimetric Analysis	<b>Dr. H. G. Wankhade</b>
28	Graphical Analysis of Data	<b>Dr. S. D. Deosarkar</b>
29	Record Keeping & Laboratory Notebook Guidelines	<b>Dr. P. R. Padole</b>
30	Introduction and Preliminary Tests for Identification of Poisons	<b>S. P. Chaudhary</b>
31	Introduction & Identification of explosives	<b>K. P. Ghodeswar</b>

### Who can apply :

- UG (B. Sc. I and PG (M. Sc. I) students offering chemistry Subject are eligible to apply for this workshop.

### Guidelines:

1. No registration fees
2. Last date for Registration : 13<sup>th</sup> November 2022
3. Plat form :ZOOM / Google Classroom
4. Meeting link will be shared only to the selected participants
5. E- Certificate will be provided to all the registered participants who attend all the sessions.
6. Registration through Google form.

**Link for Registration-** <https://forms.gle/MrfxLzvdnCJEVbhq8>

**Link to Join what'sapp Group-**<https://chat.whatsapp.com/F4ERsHZ4wezJma6GiXKSVj>

**NOTE:** All the applicants must have a personal E-mail id, personal desktop/laptop/smart phone with uninterrupted internet facility to participate in this online course.

## **ORGANIZING COMMITTEE**

**Organizer**



Dr. G. V. Korpe  
Principal



Dr. A.S. Burghate  
Professor & Head

**Convenor**



Dr. H. G. Wankhade  
Assistant Professor

**Further Assistance : Please Contact**

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