

Shri Shivaji Science College, Amravati

Department of Chemistry

Student Achievement-

Ms. Vaishnavi Nemane Cleared SET- 2021 held on 26th Sept 2021

Mr. Yogesh Ghatole has cleared the SET examinations 2021

Miss. Nikita D. Rewlani, of M. Sc. I (Chemistry) bagged **Third Prize** in Online University Level Intercollegiate Seminar Competition -2021 organized by G.S.Science, Arts and Commerce College, Khamgaon in association with Amravati University Chemistry Teachers Association.

Ms. Gayatri Harane secured highest marks in SGB Amravati University examination-2021 as a college topper

Departmental Activities-

One Day Workshop On Skilling And Placement Counselling

Date- TUESDAY 5th OCT 2021

OBJECTIVE-

- To develop skill.
- **To create** promising career opportunities.
- To provide right job for the right person in right place at the right time.
- To ensure our students will start the career and move forward in the right direction for better quality living.
- To provide career guidance through counselling and one to one interactions with average and below average students.
- To enhance the skills of students for self –employment/Vocational trainer.
- To better our previous best achievement year on year.
- To educate regarding resume preparation and interview process through co ordination in placement drives.
- To instill professional behavioral skills which includes respect values, ethics, and beliefs and maintain confidentiality.
- To have good relations with the recruiters.
- Managing recruiters correspondence and feedbacks.

One Day Workshop On Skilling And Placement Counselling was arranged from 10 am to 6pm on 5th October 2021 for the students of cosmetology batch 20-21 in four sessions.

Session one and two included Skilling techniques .

While Session three and four included placement counseling.

Hands on Skilling (Threading & Bleaching)

Session-1 The program began at 10am by welcoming the guest Dr Shilpa Shende and Vocational Trainer Ms Akansha Umak by offering a book and a bouquet at the hands of Ms Pratiksha Thakare. Introductory remark was given by the course co ordinator Dr Anjali Bodade.

The students were given hands on practice on threading ,bleaching . Students were also explained about the identification of skin type and skin care. Students enjoyed the session by practicing and getting answers to their queries. Each topic was explained in detail to the students by the expert Dr Shilpa Shende.

Session -2 In session two students were given practice on finger movements for facial. Selection of the facial kit on the type of skin and Various steps in facial were taught.

Placement Counselling

Tips on resume writing were given by the course co ordinator Dr Anjali Bodade. While Dr Shilpa Shende guided the students on self –employment. About the loan facility to have the start up, beauticians attitude, various techniques and the skills to be used. How to remain updated with the innovations as per the requirement of the society. And how to win customers satisfaction for the success of our business. Students were also guided on the beauticians dressing sense and the ambience of the saloon. Hygiene, Time management, affordable rates must not be ignored to be successful. Communication skill is very essential for taking appointments and must be followed strictly. A smiling face with a soft language and giving satisfaction to the clients will flourish the business. There is no short cut in life and hard work always pays.

Our Ex-student and Vocational Trainer at Z.P. Girls High School, Ms Akansha Umak informed the students about how to prepare and face the interview and the demonstration session. Specially to give more importance to instrumentation appliances. How to adjust oneself in the new surrounding and behavior with the other staff of the school. Importance of technically uploading the attendance of students and sessions arranged daily.

Workshop On Bridal Makeup

Objectives-

- To impart make-up skill.
- To provide exposure in the cosmetics

Workshop On Bridal Make

With a view to impart the knowledge of cosmetics and skilling- hands on make -up ,Workshop on Bridal make-up was arranged on Friday 1st October 2021 from 10am to 5.30 pm . Ms Pratiksha Thakare welcomed the guest by offering bouquet while Dr Anjali Bodade gave the introductory remark. Beauty Therapist Ms Pratibha Patil and Ms Soumya Jain guided the students on the various brands of cosmetics available in the market, selection of cosmetics on the basis of quality and the skin tone, face Countering and application of cosmetics. Bridal hairstyle ,floral decoration ,selection and jewellery wearing. Tips and guidelines for long lasting make-up. Removal of make-up and skin care.

Outcome-

- Acquired knowledge of selection and application of Cosmetics.
- Learnt about the type of make-up suitable on particular face.
- Hands on application of make-up, hairstyle and jewellery .

One Day National Workshop on “ Career Opportunities in Research and Industries for PG and research students”

This job oriented workshop designed to aware the students about huge scope and ample opportunities in different industries like Food, pharmaceuticals, agrochemicals, fine chemicals, cosmetics, oil and paints perfumery, beverages, rubbers, plastics, clinical research, forensic, public testing labs, etc. Candidates with the core analytical skill of different sophisticated analytical instruments can set up their own testing laboratories also. In this workshop resource person also focused about seeking admissions to various Ph.D. and Post Doctoral Research programme in various Institutes and the applications of research in various industries as well as Government, Public testing labs and Forensic departments.

The Department of Chemistry, Shri Shivaji Science College, Amravati organized this online One Day National Workshop on “ Career Opportunities in Research and Industries for PG and research students” on 13/10/2021 under the guidance of Dr G. N. Chaudhari,

Principal, Shri Shivaji Science College Amravati, . The workshop was inaugurated by Dr Sachin Pande ,Guest of Honor and Dr. A. S. Burghate, Professor, Department of Chemistry. The National workshop was organized around a panel of two guest speakers Dr Sachin Pandey, Technical Director, Sprinkh Pharma, Gujrat and Dr Shyam Khairkar, NIMS, Post Doctoral Researcher, Tsukuba, Japan. In order to design and run a successful workshop efforts were taken by the workshop Convener Dr. Shrikant A. Wadhal and Organizing Secretary Dr Harshali G. wankhade.

The workshop included presentation of resource persons along with question answer sessions Dr Sachin Pandey gave a general presentation about “Career opportunities in Industries, Research and Development (R&D)”. Dr Pandey discussed his 19-year working experience in various Industries and explained the opportunities in various Industries after PG and Research. Dr Pande emphasized the need for the participants to join the job away from the native place and also suggested to establish own Industry. He focused on the work of R & D sector in Industries and also on the opportunities in various industries. Dr Shyam Khairkar discussed on the topic “ Career Opportunities in Research abroad”. He explained the applications of research in Industries and Government sector. Dr Khairkar focused on applications of research in various Government sectors and also on knowledge of Ph.D. and Post Doctoral programme in India and abroad.

Total 339 participants from different colleges in India participated in this course , In this course participants were from Kalindi college, Delhi University, Department of chemistry University of Delhi, Changanassery Tamilnadu, Jammu and Kashmir, M.S.G. college Malegaon, KPG College, Igatpuri, Nashik, KTHM College Nashik, Adarsh Mahavidyalaya Dhamangaon Rly, Bajaj College, Wardha, Vaidyanath college, Beed, Nabira Mahavidyalaya, Katol, RTM Nagpur University, Nagpur, NES Science College, Nanded, Santaji Mahavidyalaya Nagpur, Phulsingh Naik Mahavidyalaya Pusad, Mahatma Fule Mahavidyalaya, Warud, Jagadamba college, Achalpur, Shri Shivaji Science College, Akola, SGB Amravati University, Vidyabharati College Amravati, Narasamma College Amravati, GVISH Amravati, Shri Shivaji Science College, Amravati

Production of Hand Sanitizer from Herbal Extract & Laboratory Reagent

Hand sanitizer is a supplement or alternative to hand washing with soap and water. The production of hand sanitizer from Laboratory reagent was achieved by mixing ethanol with essential oil of Eucalyptus. Alcohol based hand sanitizer are more effective in killing microorganisms. Ethanol along with hydrogen peroxide, glycerin, Eucalyptus oil, turmeric, Neem, Tulsi extracts were used for the final preparation. The alcohol kills the bacteria once rubbed over the hands. Alcohol rubs also helps to kill many different kinds of bacteria. Medicinal plants have a power of anti-inflammatory and antioxidant effect. The aim of this study is to prepare hand sanitizer with herbal extract which are effective against Corona virus.

Dr. Shrikant A. Wadhal, Professor, Department of Chemistry prepared hand sanitizers for college under the guidance of Dr G. V. Korpe, Principal, Shri Shivaji Science College, Amravati and Dr G. N. Chaudhari, Head, Department of Chemistry. The Synthesized sanitizer is used by the teaching staff, non teaching staff and the students of the college as a safety measures against Covid 19 virus.

Inter Class Chem - Quiz Competition -2022

On the eve of National Science Day, The department of Chemistry had organized the inter class quiz competition on 4th March 2022 at 3.30 pm at AV Theater.

Three team were selected through screening test which was held at 28th Feb 2022 at 11.00 am. The screening test contained 30 MCQ questions which based on 12th and B.Sc. I class syllabus. Overall 61 students participated in the screening test.

The aim behind the organization of Chem –Quiz 2022 is to inculcate and enhance environment of chemistry among the students of B.Sc. I

The first six ranker were selected for Oral quiz. The three team were

- Alpha 1. Aman Khnadare (BTZ)
 2. Sakshi Damble (BTZ)

- Beta 1. Atharv Girnale (BTZ)
 2. Anand Barange (BTZ)

- Gamma
1. Ambia Siddiki (PCM)
 2. Prachi Rathod (MBZ)

Played the Chem Quiz Competition.

The Chem Quiz -22 had three rounds

Round I. MCQ

Round II Buzzer Round

Round III Rapid fire

The Chem Quiz -2022 began with the inaugural function, Dr. G. N. Chaudhari, Prof and Head Department of Chemistry was the Chairperson for the function and Dr. N.R. Thakare, Professor as Judge for the Chem Quiz-22. On this occasion HOD briefed and motivated the student in his talk.

At the end of three rounds, the judges declared the Beta team is the winner of this competition with 110 marks.

The Runner up team was Alpha team with 55 marks.

Prof. R. D. Bankar and Dr. N. H. Bansod took special effort for the successful organization of Chem Quiz - 2022.

Six Days Hands on Training Course on “Advanced Instrumentation Techniques and their Practical Applications for PG and Research Students”

The Department of Chemistry has organized Six Days Hands on Training Course on “Advanced Instrumentation Techniques and their Practical Applications for PG and Research Students” from 28/03/2022 to 02/04/2022. Dr Shrikant A. Wadhal, Professor, Department of Chemistry took initiative as a course co-ordinator to effectively carry out the sessions of this course. In this course total 34 students from different colleges participated for six days. Mr. Amol Gawande from Peaks Analytical and Research Centre, Nagpur, Dr Shrikant A. Wadhal, Professor, Department of Chemistry and Mr Satish Dashore provided the students with hands on training regarding some latest instruments like HPLC, FTIR, UV- Visible, XRD, Atomic Absorption Spectrophotometer used in laboratories. This course proved to be very useful for students to get employment in various industries and Chemical laboratories and also to start their own enterprise. This certificate course definitely enhanced the student's skill in instrumental techniques in chemistry. This course was successfully organized by the Department of Chemistry.

The course was inaugurated under the guidance of Dr G. V. Korpe, Principal, Dr. G. N. Chaudhari, Head, Department of Chemistry the Chief Guest of the function. Mr. Amol Gawande, Scientist, Peaks Analytical and Research Centre, Nagpur, was guest of honor. Mr. Amol Gawande discussed about his seventeen years working experience in various Industries. Mr. Amol Gawande gave Hands on Training of HPLC to the participants. Dr Shrikant A. Wadhal, Professor, Department of Chemistry and Mr. Satish Dashore, Incharge, Central Instrumentation Cell, provided hands on training of IR, UV- Visible and XRD, Atomic Absorption Spectrophotometer. Total 34 participants from different colleges of SGB Amravati University Amravati participated in this course, In this course participants were from G.V.I.S.H. Amravati, G. S. Tompe Arts, Commerce, Science College, Chandur Bazar, Vidyabharati College, Amravati, Shri Shivaji Science College, Amravati. Certificates provided to students with A,B,C grade depending on score secured ($A^+ \geq 80\%$, $A \geq 65-79$, $B \geq 50-64\%$, No certificate $< 50\%$) 40% marks depends on assignment submitted and attendance and 60% marks depends on final examination score.

Visit to Shri. Shivaji Agriculture & Biotechnology College Laboratory

Our department introduces this activity for undergraduate students offering chemistry. An idea behind this activity is to improve the knowledge of the students and to create their interest in the chemistry subject. By this visit to Agricultural & Biotechnological laboratories students got the basic information regarding the advance instruments, the working of instruments & their applications. Students come to know the different opportunities available for them in various fields like pharmacological and industrial laboratories.

This year B.Sc.II (MEB) 80 students has visited Shri. Shivaji Agriculture & Biotechnology College, Amravati. This visit was planned on 2-05-2022 at 11.00 AM to 1.30 PM. In this visit students visited **Biochemistry & Molecular Biology Lab., Proteomics & Metabolomics Lab., Plant Biotechnology Lab.** Students got the information about the UV-Visible Spectrophotometer, Kjeldahl Unit, Incubator , pH-meter, Waterbath, Autoclave , Rotary Incubator , UV transilluminator , Colorimeter, Tabletop Cetrifuge at this three laboratories. By this visit students come to know the applications of these advance instrument in Food Technology , Plant Biotechnology & Medicinal Biotechnology. Mrs. Sarika Ingole , Dr. Santosh Chikte from Plant Biotechnology department, Mr.Amol Agarkar from Food Biotechnology department, Mr. Atul Dange Mr. Shailesh Patil from Molecular Biology and Biochemistry department were present and explained in detail the information about the instruments to students.

For this visit B.Sc. II (MEB) students were accompanied by Dr. N.A.Kalambe, Dr. V.B. Khobragade , Ms. R.D. Bankar from Department of Chemistry, Shri. Shivaji Science College, Amravati.

Resources from PG to UG students

“Resources from PG to UG students” is one of the activities of Chemistry Department in the Session 2021-2022. Under this activity knowledge of P.G. students is utilized for better improvement in the knowledge of UG students, the former inculcates the teaching knowledge and the latter gain it.

In this session, the PG students have been divided into groups each of three students and demonstrated the uncommon chemistry practical on the topic Chromatography for B.Sc.II Sem IV and B.Sc. III Sem VI Chemistry offering students .

All students of M.Sc. II Chemistry are involved in this activity. They have demonstrated the Paper Chromatography experiment from 19 April to 07 May 2022 . The demonstrator has explained the basic principles involved in the chromatography and the work actually on the experiments. All the U.G. Students were actively involved in this part and in real sense they learnt the subject through experiment.

This resource is intended to help students to develop skills to improve their abilities to perform the chemistry experiments in the laboratory and also to understand the subject Chemistry.

Review of Paper Writing

After long period of pandemic situation this is the first batch to carry out their project research work in the laboratory. Every student worried about the how it could possible for them to complete their research project because they don't have the practical knowledge. As every student graduated from different institute via online platform because of Covid-19. It's a big challenge for me how I could able to build their confidence and encourage them to perform laboratory task and writing of their research project.

The review of paper writing is the regular activity for post graduate students organized by our department from session 2015-2016. In this year it was organized for M.Sc. I and II students on 10th May 2022. The purpose of this activity is to introduce basic concepts in the research field. This activity helps students to carry out their research project work in proper channel and published it in the national or international journal. Total fifty six students were attended this activity. This activity was started from the power point presentation of Dr. Y. S. Thakare which includes what is research, research purpose, characteristics of research, how to select research topic, literature review, experimental work, data analysis and characterization. The emphasis was given on to publish their research work so the detail about what is journal, journal writing, impact factor and a step during research paper writing was explained.

The main focus of this activity to provide systematic path to carry out their research work on a particular topic in chronological order. It's always started with an overview of the research topic and give some context, explaining why the study of this research topic is necessary. Encourage them to go through a literature review for analytical examination of previously published literature which helps them to select research topic and explore potential areas in a particular field. Writing a research article provides clarity, novelty, and contribution to the area of research and it demands a great level of in-depth understanding of the subject and a well-structured arrangement of discussions and arguments.

The purpose of a review of paper writing is to assess a particular research question, theoretical or practical approach and its publication which provides readers with in-depth knowledge and state-of-the-art understanding of the research topic. Activity helps them to build their confidence that they can also do the good research work with publication.

After that general idea about how to write the title, abstract, keywords, introduction, experimental procedure, result and discussion, conclusion and references was explained. Students were introduced about what is citation, impact factor, h-index, i-index, i10-index. This presentation pointed out various UGC - CARE approved journal from different research area of chemistry. What is a Google scholar? How to write the paper for particular journal, abbreviation of journal and explain author guidelines for that journal. How to register for the journal, procedure to send the paper to journal and how to write the project was also explained. Hard copy of research sample paper related to their project work was provided to the student during activity. This activity explorer and opened the platform to present/published their work in near future.

In the last phase activity topic was opened for discussion. Every student were actively participated and satisfied with the all areas covered in the power point presentation. This activity helps to build their confidence about completion of their research project.

PG- Report

Online NET/SET Workshop

P. G. Department of Chemistry organized two day online NET/SET Workshop on 25th to 26th August 2021.

- **Inaugurator:** Dr. F. C. Raghuwanshi, Dean, SGBAU, Amravati.
- **Guest of Honour:** Dr. A. S. Aswar, Head and Prof. Department of Chemistry, SGBAU, Amravati.
- **Chairman:** Dr. G. N. Chaudhari, Head Department of Chemistry, Shri Shivaji Science College, Amravati
- **Convener:** Dr. P. R. Mandlik, Prof. Department of Chemistry, Shri Shivaji Science College, Amravati
- **Guest Speakers:**
 1. Dr. Bapurao B. Shingate, Asso. Prof, Department of Chemistry, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad
 2. Dr. Anand S. Burange, Assit. Prof, Department of Chemistry, Wilson College, Mumbai
 3. Dr. Vikas D. Kadu Assit. Prof, Department of Chemistry, School of Chemical Science Punyashlok Ahilyadevi Holkar, Solapur University, Solapur
 4. Dr. Manish D. Raut, Ex-Assit. Prof, Department of Chemistry, Modern College, Pune.

Teachers Day Celebration

On Monday 6th September 2021, we celebrated online Teacher's Day. Guest of honour Dr. A. S. Burghate, Department of Chemistry, Shri. Shivaji Science College, Amravati. Also Dr. Y.S. Thakare has lightened all the corners of education and told us about the personality development. For this function there was a gracious presence of Dr. S. K. Rithe, Coordinator of P.G. Department of chemistry and faculties of Chemistry department were present.

Water Analysis Training

Plasti Surg industryproperty Ltd. MIDC, Amravati has standardized their field test kits and provided hands on training on water analysis under the guidance of DR. P. R. Mandlik, In-charge, P. G. Department of Chemistry and DR. S. K. Rithe, Coordinator of P. G. Department of Chemistry on dated 14th -15th December, 2021.

National Science Day Celebration, NSD-2022

On the occasion of National Science Day, NSD-2022, P. G. Department of Chemistry organized Online Intercollegiate Poster Competition on theme "The Innovative Ideas and Role of Chemistry in COVID-19" held on 5th Feb. 2022. Total 15 Students participated in competition and best three posters were judged by DR. P. R. Mandlik and DR. V. B. Khobragade.

Guest Lecture

Dr. S. P. Kulkarni, Ex-Professor, Department of Chemistry, Adarsh Mahavidhyalaya, Dhamangaon Rly, Dist. Amravati has delivered guest lecture on the topic “Radioanalytical Techniques” on 23rd March 2022.

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Inauguration of chemical Society

Chemical society 2021-22 was inaugurated on 8th April 2022 at the hands of **Prof. A. S. Wankhade**, Ex- Professor, Government Vidharbha Institute of Science and Humanities, Amravati, as a chief guest. For this function there was a gracious presence of Dr. G. V. Korpe, as a chair person, and faculties of Chemistry department were present.

Late Dr. Nilay Bhamburkar guest lecture Series

Every year a guest lecture series organized in the memory of late Dr. Nilay V. Bhamburkar. This year P.G. Department of Chemistry has organized late Dr. Nilay V. Bhamburkar Lecture Series on 9th May 2022. . On the occasion Prof. V.G. Bhamburkar, Ex-Principal, Shri Shivaji Science College, Amravati was present as Chief Guest and Dr.G. V. Korpe Principal, Shri Shivaji Science College, Amravati chaired the inaugural function.

Prof.A.S. Wankhade from Department of Chemistry, Govt. Vidarbha Institute of Science & Humanities, Amravati was delivered the lecture on Statistical thermodynamics, Dr.Mayur Khedkar Department of Chemistry, Hislop College, Nagpur delivered the lecture on Designing the synthesis based on Retrosynthetic analysis and Dr. Shoeb Khan from Department of Chemistry, Hislop College, Nagpur was delivered the lecture on Mechanism of Molecular Rearrangement. Students from home institution attended the lectures

Head

Department of Chemistry

