

The Science Spin

An Annual newsletter (Volume-7)

2022-23



Department of Sciences

KAMLA NEHRU COLLEGE FORWOMEN

Re-accredited with Grade "A++" (3.55'4.00 CGPA) by NAAC, Bangalore College with Potential for Excellence by UGC., New Delhi

Star College Status in Sciences by DBT, New Delhi

OUR VISION



Smt. Kamala Nehru (1899-1936) To blossom as one of the
Leading and Most Preferred
Institutes with Earnest
endeavors to enhance its quality
in imparting excellent
education-vocational &
competitive to the highest
academic standards with full
devotion and dedication.

OUR MISSION

To Nurture, Nourish and Chisel our girls into a host of Well-shaped Individuals- Self-reliant,

Self-sufficient and Responsible Citizens, leading to the upliftment of the society.



It gives me immense pleasure to know that Department of Sciences, Kamla Nehru College for Women, Phagwara is bringing out the Science Newsletter "The Science Spin" for the sessions 2021-2022. I extend my heartiest congratulations to the Principal and entire team of the Department on this prime occasion. I am sure that they will be steadfast in their efforts and this newsletter will be a regular feature in the upcoming years as well.

Mr. Dhiraj Sardana
President



I'm gladsome that the Department of Sciences is delivering its annual newsletter "The Science Spin". I appreciate the faculty of Science Department that they are doing recommendable work for drawing out the annual newsletter 2022-2023. This newsletter is a real reflection to highlight the departmental activities such as Green Diwali, National Science Day, Visit to Lovely Professional University, Workshop on Immunological techniques etc. I heartily congratulate the whole group of the Science Department and students and I also motivates the teachers of Science Department to organize such events in future.

Dr. Savinder Pal Principal



Extremely obliged to hear about the new issue launch of Science Spin by one of the most prestigious college I have ever seen "Kamla Nehru College for Women" Phagwara. Felt delighted to share the fact that Science spin newsletter has gained its popularity since the beginning by making string connect looking into the effective demand of students and other stakeholders. There is absolutely no doubt the college is living the dream of its respective founder members of providing the best education and care to the society's comparatively deprived gender. In particular, the high visioned focus of Dr. Savinder Pal the leader of NAAC A++ accredited college who actually look after the best placement opportunity in best Industry for future aspirants enrolled in college. Enthusiastic participation of students throughout the year in opportunities such as workshops, Edu fair, seminars, guest lectures for overall personality development from time to makes the college best in town. Wishing the best of success ahead forever from the core of my heart and looking forward to let the association building stronger for bright future.

Dr Minhaj Ahmad Khan
Associate Professor
Department of Biochemistry
School of Bioengineering and Biosciences
Lovely Professional University



I would like to inform you that Department of Science of Kamla Nehru College for Women, Phagwara is delivering its yearly bulletin "The Science Spin". It would not have been possible without the kind support and help of many individuals. I'm appreciative to all the teachers of the Department for aiding me in drawing out this extraordinary bulletin. Also, I would like to express my sincere gratitude to our principal for providing us right direction and oversight while dealing with the news release.

Ms. Priyanka Head, Department of Sciences



I am glad to inform that Department of Sciences, Kamla Nehru College for Women, is releasing 7th volume of News Bulletin "The Science Spin." It is prime attempt by the entire department and worth appreciating. I am thankful to all faculty members of the department for their sincere efforts and grateful to the Principal Mam for guidance and supervision.

Ms. Manvinder Kaur Assistant Professor in Botany

"The important thing is to never stop questioning."

DEPARTMENT OF SCIENCES

The Department of Sciences gained recognition in the year 2004 and since then it has been functioning as a significant part of the institute. Presently the department is offering bachelor courses in Medical, non–Medical and Computer Science with an additional course in Biotechnology (Certificate, Diploma and Advance Diploma). With the passage of time, the department has grown itself not only in the field of academics but also in various research programs.

<u>Different Courses offered by the Department</u>

- B.Sc. in Medical
- B.Sc. in Non-Medical
- B.Sc. in Computer Science
- Add on course in Biotechnology (Certificate, Diploma and Advanced Diploma)

<u>"STAR COLLEGE STATUS"</u>

The department of sciences has the proud and rare honor to be under "Star College Scheme" by Department of Biotechnology (DBT), New Delhi and approaching remarkable milestones day by day into its credit.

The department has utilized this grant for the constructive missions like upliftment of basic infrastructure including:

- Smart Class Rooms
- *Upgradation of Laboratories with sophisticated equipments*
- Inclusion of new plant species in Botanical Garden
- Vermiculture Unit
- Reconstruction of Green House



<u>Left to right</u>:-Ms. Prabhjit Kaur, Ms Tunish Kaur, Ms. Manvinder Kaur, Dr. Ruminder Kaur (Vice Principal), Dr. Savinder Pal (Principal), Ms. Priyanka, Ms. Supriya Lamba, Ms. Pinky, Ms. Isha Bhardwaj, Ms. Jaspreet Kaur

FACULTY OF SCIENCE DEPARTMENT

MATHEMATICS

• Name: Ms. Priyanka

Designation: Assistant Professor (Head of the Department)

Qualification: M.Sc. (Hons.), M.Phil, B.Ed

Area of Specialization: Differential equation, Algebra

Publications: 01 (International)

Seminars/Webinars/Conferences/Workshops Attended:

18 (01-International; 17-National)

Email: shanaya9may2014@gmail.com

• Name: Ms. Jaspreet Kaur

Designation: Assistant Professor

Qualification: M.Sc.

Area of Specialization: Analysis, Algebra

Seminars/Webinars/Conferences/Workshops Attended: 6 (National)

Email: jaspreetvaid99@gmail.com

CHEMISTRY

• Name: Ms. Pinky

Designation: Assistant Professor

Qualification: M.Sc., B.Ed

Area of Specialization: Organic Chemistry

Seminars/Webinars/Conferences/Workshops

Attended:11(National)

Email: pinkysingh726@gmail.com

BOTANY

• Name: Ms. Manvinder Kaur Designation: Assistant Professor Qualification: M.Sc., B.Ed.

Area of Specialization: Arid Zone Ecology

Publications: 01 (National)

Seminars/Webinars/Conferences/Workshops Attended:

16(01- International, 15-National)

Email: mkmanvinder123@yahoo.co









• Name: Ms. Supriya Lamba

Designation: Assistant Professor

Qualification: M.Sc., B.Ed

Area of Specialization: Entomology

Seminars/Webinars/Conferences/Workshops Attended:

14 (01-International;13-National)

Email: supriyalamba1996@gmail.com

ZOOLOGY

• Name: Ms. Tunish

Designation: Assistant Professor

Qualification: M.Sc.

Area of Specialization: Immunology

Seminars/Webinars/Conferences/Workshops Attended:

04 (National)

Email: tunishkaur262@amail.com

PHYSICS

• Name: Ms. Isha Bhardwaj

Designation: Assistant Professor

Qualification: M.Sc.

Area of Specialization: Quantum Mechanics

Seminars/Webinars/Conferences/Workshops Attended:

11 (06-international, 05 national)

Email: ishabhardwaj913@qmail.com

Name: Mrs. Prabhjeet KaurDesignation: Assistant Professor

Qualification: M.Sc., B.Ed

Area of Specialization: Quantum mechanics

Seminars/Webinars/Conferences/Workshops

Attended:05 (National)

Email: prabhjeet242@gmail.com









"A Scientist is not a person who gives the right answers; he is one who asks the right questions."

INFRASTRUCTURE

Teaching science is not only confined to classroom teaching, but it is fully based on the exposure of the students that they can get outside the classroom. Keeping this in mind, the department has different Labs, Smart classrooms, Botanical garden, Vermiculture, Green house etc. where students of the department can get firsthand experience to enhance their knowledge.

(I) Laboratories

The Department consists of well established, fully equipped and modernized laboratories in the fields of Botany, Biotechnology (Tissue culture lab and Instrumentation lab), Zoology, Chemistry and Physics. Various sophisticated equipment includes, UV-VIS spectrophotometer, potentiometer, laminar airflow, BOD incubator and seed germinator. The students make appropriate use of the same and grab unprecedented opportunities for interdisciplinary collaboration.



Botany Lab



Biotechnology Lab





Zoology Lab

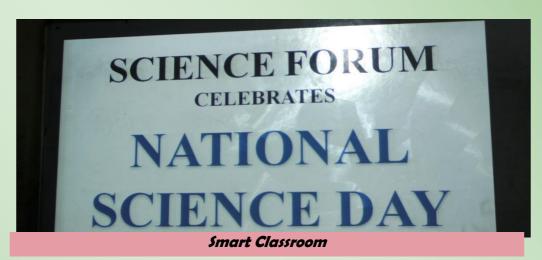


Chemistry Lab



(II) SMART CLASSROOMS

The Department also owns one smart class room promoting digital education to students. The staff makes use of this platform and uses all interactive modules like videos and power point presentations for students. These modules are eye catching, fast and effective. The students are also in return engrossed in digital training to harness heir potential and build confidence.



BOTANICALGARDEN

The practical knowledge of flora and fauna is imparted to the students through Botanical Garden and Green House.

Botanical garden of the department consists of different plant varieties along with some microorganisms. The setup is fully based on the Bentham and Hooker system of classification. It also contains a separate rose garden and cactus garden in which different species of rose and cacti are present. Along with this, it has aquatic pond for the growth of various aquatic plants i.e. hydrophytes and microorganisms. There are various parallel project plans running in the botanical garden:

- <u>Vermiculture unit</u>- In this unit, organic manure is prepared using earth worms, cow dung and various plant litters which are subsequently used in garden and campus lawns to ensure organic farming.
- <u>Verm wash unit</u>- This unit has been successfully running where bio pesticides are generated and supplied to the plants as alternative to the inorganic fertilizers.
- <u>Preparation of potash alum from waste aluminum foil</u>- The waste aluminum foil of the campus is used to generate potash alum which is used as a toilet cleaner. This chemical is also used in chemistry lab for various experimental purposes.





GREENHOUSE:

I.

The department also has a green house where plants which require particular climatic conditions are grown. Students are assigned to work and clean the green house and utilize it for the academic curriculum.



Green House

Various activities carried out by the department

> Co-Curricular activities of Department:

Taking into consideration of student's holistic development, the department also motivates the students to participate in inter-college as well as intra-college activities held time to time. All these activities help the students to enhance their knowledge and creativity.

> SESSION 2022-23

1) OZONE DAY CELEBRATION:

The department of Science organized rally and potted plant competition on the occasion of "WORLD OZONE DAY" and "SWACHH AMRIT MAHOTSAV" on theme "GLOBAL COOPERATION TO PROTECT LIFE ON EARTH" in the college campus on Sep 16, 2022. The main motive of this programme was to create awareness about the problems faced due to ozone layer depletion. They also motivated other students to lessen the use of harmful components which are responsible for ozone depletion.





2)NUTRITION WEEK

Science department of Kamla Nehru College for Women, Phagwara celebrated "NATIONAL NUTRITION WEEK" on Sept 24,22. Students of science department presented PowerPoint presentation based on theme "DIET AND NUTRITION". The main motive of this celebration was to aware students about balanced diet and proper exercise.





3)SEMINAR:

The department of Science conducted a rally and seminar on topic "CONSEQUENCES OF DRUG ABUSE" in college campus in Oct19, 22. Student presented PowerPoint presentation to aware students about the drug addiction and how to combat with the addiction of drugs.





4)PLANT SAPLINGS: -

Green Squat Team of Science Department had planted saplings of various plants like **neem**, **amla, mango etc**. on 21 Jan, 2023in locality of Chahal Nagar, Phagwara where teachers accompanied the students. Around 50 students participated in this event.





5) WORKSHOP ON IMMUNOLOGICAL TECHNIQUES: -

Department of science, Kamla Nehru College for Women, Phagwara organized one day workshop on "Immunological Techniques" on 2 Feb, 2023. Dr. Minhaj Khan, associate professor, LPU, Phagwara was invited as a resourceful person. He performed an experiment and also gave a lecture regarding career counseling and the placement of students in different master courses. Around 40 students attended the workshop.



6) WORLD MATHEMATICS DAY:

IQAC in collaboration with Professor Puran Singh science society of Kamla Nehru College for Women, Phagwara celebrated "World Mathematics Day" on March 14, 23 in which student presented power point presentation on the theme "Mathematics for everyone". The main motive of organizing World Mathematics Day was to aware students about the application of Mathematics in daily life. Mental math's games were also organized by students which help them to enhance their cognitive skills.





7)WORLD CANCER DAY

Science Department of Kamla Nehru College for Women celebrated "World Cancer Day" in which students participated in Poster Making. The main aim to celebrate this day is to create awareness among students about cancer, its preventive measures and diagnosis.





Intra-college competitions: -

SESSION 2022-23

1. GREEN DIWALI

The Department of Science and Green Audit Committee celebrated "Green Diwali" on Oct 20, 2023 in which students vigorously participated in Rangoli competition and Cleanliness Drive. The main motive of this event was to motivate the students to celebrate the eco-friendly non-polluting Diwali.





2. World AIDS DAY: -

Department of science celebrated "World AIDS Day" on 1 Dec, 2022. The poster making competition was organized on this occasion to aware the students regarding sexual risk to prevent the transmission of HIV. About 40 students were participated in competition.



3. NATIONAL SCIENCE DAY 2023

IQAC in collaboration with Prof. Puran Singh Science celebrated "NATIONAL SCIENCE DAY" on Feb 28, 2023 under the theme "Global Science for Global Wellbeing" in which students actively participated in various events like Declamation, Collage Making, Best out of waste, Placard Poster Presentation and Essence your food with flora.





4. WORLD WATER DAY

IQAC in collaboration with "Professor Puran Singh science society" of Kamla Nehru College for Women, Phagwara celebrated "WORLD WATER DAY" on March 22, 2023 in which students represented posters under the theme of "Accelerating the change to solve the water and sanitation". The foremost incentive of this event was to create awareness about water scarcity, importance of clean water and its conservative measures among students.





5. WORLD HEALTH DAY:

Department of Science celebrated "WORLD HEALTH DAY" in which students actively participated in Poster Presentation under the theme "HEALTH FOR ALL". Dr. Savinder Pal, college principal told the students to take healthy diet. Around 30 students participated in this event.





6. WORLD EARTH DAY:

Department of Science celebrated "WORLD'S EARTH DAY" on April 24, 2023, on the theme "INVEST IN OUR PLANET" where our principal Dr. Savinder Pal addressed the student to plant more and more trees in a year and conserve water. Students also participated in poster presentation. Around 25 students participated in this event.





GREEN SQUAD

Green Squad is a team of B.Sc. (Medical) students who keeps regular check to botanical garden as well as to the lawns of college for the maintenance of plants. They not only preserve the old plants but also check the cleanliness of lawns and whole college campus.

Moreover, eco-friendly plants have been planted like hyper accumulators and bio remediators.

Teacher In charges: Ms. Supriya Lamba and Ms. Tunish

THE TEAM "GREEN SQUAD"

Sr. No.	Class	Name of Students
1.	B.Scs. (Medical) Sem VI	Manroop Kaur
2.	Do	Simranjit Kaur
3.	Do	Gagandeep Kaur
4.	Do	Jyoti
5.	Do	Jaskaranpreet Kaur
6.	B.Sc. (Medical) Sem IV	Amanpreet Kaur
7.	Do	Manjot Kaur
8.	Do	Gursimran Kaur
9.	B.Sc. (Medical) Sem II	Vinny Banger
10.	Do	Deeksha
11.	Do	Sukirti Sharma



ENERGY SQUAD

E nergy Squad is another team of B.Sc. (Non-Medical and computer science) students who promotes the awareness of energy usage and motivates others on energy wastage issues. The team makes regular visits to all college premises and ensures zero wastage of energy. A new project has been initiated by the "Energy Squad" team in support of conservation where drained water is collected and reused for secondary purposes and for watering the plants. The students also celebrate Earth Hour to spread awareness for the preservation of electrical energy.

Teacher In charges: Ms. Isha Bhardwaj, Ms. Prabhjeet Kaur

THE TEAM "ENERGY SQUAD"

Sr. No.	Class	Name of Students
1.	B.Sc. (Non- Med) Sem VI	Harman
2.	Do	Alka
3.	Do	Panna
4.	Do	Sanjana
5.	Do	Megha
6.	Do	Garima
7.	B.Sc (C.Sci.) Sem VI	Avneet
8.	B.Sc. (Non-Med) Sem IV	Kariti
9.	B.Sc. (C.Sci.) Sem IV	Sonia
10.	B.Sc. (Non-Med) Sem II	Simran
11.	Do	Soni



Prides of the Department

Medical Stream

Sr.	Name	Class	Percentage
No.			
1.	Simranjeet Kaur	B.Sc. III	77.5%
2.	Jyoti Kumari	B.Sc. III	77.5%
3.	Manroop Kaur	B.Sc. III	73.75%
4.	Gaganpreet Kaur	B.Sc. III	73%
5.	Manjot	B.Sc. II	82%
6.	Gursimran	B.Sc. II	80%
7.	Aman	B.Sc. II	77.75%
8.	Kajal Kumari	B.Sc. I	83.2%
9.	Vinny Banger	B.Sc. I	71.5%
10.	Sukirti Sharma	B.Sc. I	70%
11.	Gurleen Kaur	B.Sc. I	70%

Non-Medical Stream

Sr.	Name	Class	Percentage
No.			
1.	Garima	B.Sc. III	77.7%
2.	Sanjana	B.Sc. III	73.5%
<i>3.</i>	Swati	B.Sc. III	69.25%
4.	Neha	B.Sc. II	73%
5.	Saloni	B.Sc. II	69.25%
6.	Sarika	B.Sc. I	70%
7.	Soni	B.Sc. I	62.25%
8.	Simran	B.Sc. I	60%

Computer science Stream

Sr.	Name	Class	Percentage
No.			
1.	Avneet	B.Sc. III	69.7%
2.	Sonia	B.Sc. II	60%









































Students Enrolled for Higher Studies

SESSION 2020-2021

Sr.	Name	Class	Institute
No.			
1.	Anjali	M.Sc. Chemistry	S. Govt. College of science Education and Research, Jagron
2.	Nisha	Basic computer course	Tulip computer center, Phagwara
3.	Ashmeet Kaur	M.Sc. physics	Lyallpur Khalsa College, Jalandhar
4.	Krishma	B.Ed.	Ramgarhia College, Phagwara
5.	Vaishali	B.Ed.	Ramgarhia College, Phagwara
6.	Amanpreet Kaur	M.Sc. mathematics	GNA University
7.	Rajvir Kaur	Basic computer course	Tulip computer Centre, Phagwara
8.	Lakshmi Kumari	General nursing and midwifery	Gee Bee institute of nursing and health science
10.	Gaganpreet Kaur	Higher Studies	Canada
11.	Minakshi	B.Ed.	CT Group Shahpur
12.	Prabhsharan	M.Sc. Micro	GNDU
13.	Bhavna	M.Sc. chemistry	LPU

Placement

SESSION 2020-2021

Sr. No.	Name	Class	Job
1.	Pooja Kumari	B.Sc. (N. Med)	Consultant (Absolute Oversea, Phagwara)
2-	Ramandeep Kaur	B.Sc. (N. Med)	ILETS Trainer (Deepika's Del Institute, Jagraon)

Workshops/Seminars/Webinars attended by Teachers

SESSION 2022-2023

Sr. No.	Name	Number of webinars/Seminars/workshops attended
1.	Mrs. Priyanka	04
2.	Ms. Manvinder	04
3.	Ms. Pinky	03
4.	Ms. Supriya Lamba	04
5.	Ms. Isha Bhardwaj	02
6.	Mrs. Prabhjeet Kaur	01

Celebration of Important Days

- "Van Mahotsav" (July1-July7) by planting trees in and outside the college premises.
- "Breast Feeding Week" (Aug1-Aug7) by enlightening the students through informative talks by the team of esteemed experts.
- "Cancer Day" (4 Feb) by imparting informative talks and intra departmental competitions.
- "Science Day" (28 Feb) by hosting different scientific activities.
- "Water Day" (22 March) by organizing rally and various competitions.
- "Health Day" (7 April) by arranging slogan writing competitions.
- "Earth Day" (22 April) by planting trees.
- "Ozone Day" (16 Sep) by fancy dress and poster making competitions.

We are Unique.....

- Smart class room for effective teaching and training
- Extension lectures and Workshops by experts to enlighten our students
- Educational trips/ collection trips to universities and research institutes to provide hand on training to our students
- Research projects by the students to engross them in research
- Class seminars by students via power point presentations
- Regular tests/assignments throughout the course
- Well-equipped laboratories with modern facilities
- Add-on vocational courses
- Competitions for students to motivate them apart from academics

Miles to go.....

- Establishment of Zoological Museum
- Plant Herbarium
- Departmental Library

BULLETIN OF SCIENCE DEPARTMENT

कमला नेहरू कालेज के साइस विभाग ने कार्यशाला करवाई



खन जांच के दौरान रक्त का चिपकना,

कमला नेहरू कॉलेज फॉर वूमेन की छात्राओं ने कार्यशाला में भाग लिया



कमला नेहरू महिला कॉलेज ने विश्व स्वास्थ्य दिवस मनाया



कमला नेहरू कालेज के साइंस विभाग ने कमला नेहरू कालेज में नशे पर पर्यावरण संरक्षण के लिए किया पौधारोपण करवाया जागरुकता सैमीनार



पौधारोपण करते हुए कमला नेहरू कालेज की छात्राएं।

प्रवेरा न्यूज/अमनदीप फगवाड़ा, : स्थानीय कमला नेहरू कालेज फॉर **प्राचारा में प्राचार्या डॉ. सविन्दर पाल के दिशानिर्देशन में साइंस विभाग** र्यावरण संरक्षण के प्रति लोगों को जागरूक करने के लिए छात्राओं व प्राच्या। मांझा प्रयास से वाहल नगर फगवाड़ा क्षेत्र में विभिन्न प्रकार के पौधे रोपे



कमला नेहरू कॉलेज फॉर कमला नेहरू कालेज में विमेन में मनाई ग्रीन दीवार्ल विश्व जल दिवस मनाया





कमला नेहरू कॉलेज में विश्व जल दिवस दौरान उपस्थित छात्राएं।