



DAULAT RAM COLLEGE UNIVERSITY OF DELHI

Accredited Grade 'A' By NAAC



IN HOUSE SKILL DEVELOPMENT PROGRAMME UNDER IQAC

A REPORT (2021-22)

PROF. MEETU KHOSLA
CONVENOR

PROF SAVITA ROY
PRINCIPAL

MESSAGE FROM THE PRINCIPAL



PROF SAVITA ROY

PRINCIPAL

A holistic education comprises development of life Skills, learning abilities and healthy development of a student in addition to their academic training. In the Academic Session 2021-22, the Skill Development Program at Daulat Ram College has taken a multidisciplinary approach to expose the students to a variety of soft and hard skills that will increase their capacity paving way for productivity and enhancing competence. It is a matter of great delight that this year multiple In-House Skill Development Programs were organised in our college to upgrade the students with ICT skills and inculcate practical skills to build proficiency that will promote their chances for employability.

I congratulate the entire teaching fraternity of Daulat Ram College who under the able guidance of Prof. Meetu Khosla, Convenor, SDP, organised a two-day ICT SDP from November 24-25, 2021. The aim of the ICT SDP was to train the newly joined First Year students on different ICTs and digital platforms to empower the students to use technology for the hybrid teaching learning process. The SDPs will train the students in requisite skills and bridge the learning gap to ensure maximum participation in the learning and research activities conducted in the classroom. The SDPs conducted by various departments on themes of inculcating life skills and healthy development will ensure the holistic development of all students.

MESSAGE FROM THE CONVENER



DR. MEETU KHOSLA

CONVENER

Daulat Ram College is a pioneer in organising in-house Skill Development Programs under the esteemed guidance of our Principal Prof Savita Roy. The Skill development program was launched in 2015 with an intention to bring about constructive changes in paving the pathway to build a strong and progressive skill-based education, integrating knowledge with requisite skills to foster holistic development of the students at Daulat Ram College. Over the past 6 years more than 40 short term in-house skill development programs have been conducted successfully by the college training more than 600 students of the college in various life skills. The vision behind the initiation of skill development programs has been to strengthen and optimize the capabilities of our students by providing them an educational environment fostering skill development that will make them not only more self-reliant but also enable them to create opportunities for others through entrepreneurship initiatives offering occupational choices and opening windows for economic growth and sustainability.

The theme of the Skill development program for the year 2021-2022 was **“Life Skills, Learning Abilities and Healthy Development”**. The main aim was to provide **Inclusive education by applying knowledge & skills in being productive, having an Interdisciplinary Approach** with two department collaborating on a SDP for a week facilitating general skills catering to all the students of Daulat Ram College. **Opportunities were extended to students of other colleges as Government College Chouhtan, Barmer and Government Girls College Magra Punjala in Jodhpur under the Vidya Vistar scheme .**

The main objectives of the Skill Development Programs were to empower the students with knowledge-based skills that will be beneficial for developing, enhancing and promoting cognitive, social, health and wellbeing, technological, scientific, and occupational skills. These programs facilitated a learning environment that exposed the students to understand the relevance of values in education and process technical skills. The programs covered disease prevention with natural remedies & identification of active molecules, gender studies, wellness through yoga & healthy development, research methodology, enhancing C++ programming and its applications and learning ICT tools for classes. The programs facilitated real life skills, enhanced competency skills, promoted entrepreneurship, improve health and wellbeing, fostered self-reliance and optimized potentialities.

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- 1)CHEMISTRY AND BOTANY DEPARTMENT
- 2)ENGLISH AND PSYCHOLOGY DEPARTMENT
- 3)SANSKRIT AND NHE DEPARTMENT
- 4)MATHS AND ECONOMICS DEPARTMENT
- 5)ECO CLUB DHARA
- 6)ACKNOWLEDGEMENT
- 7)EDITORIAL TEAM

CHEMISTRY AND BOTANY DEPARTMENT

Names of the Collaborating Departments: Chemistry and Botany

Title of the Course: Disease prevention with natural remedies and identification of active molecules

Sub-theme: Healthy Development

Course Coordinators: Dr Darshan and Dr Meenam Bhatia

Duration with dates: 20th to 27th December 2021

Sr. no	Date	Time	Module/topic title	Name of the Speaker	Affiliation of the Speaker
1.	20 th December 2021	10:00 am- 11:00 am		Prof. P.L. Uniyal,	Senior Professor, Department of Botany, University of Delhi
2	20 th December 2021	11.30 am- 1.30 pm	Introduction of Diabetes, drugs/dosage/mechan- ism	Dr Darshan	Associate Professor, Department of Chemistry, DRC
3	20 th December 2021	1.30 pm- 3.00 pm	Natural remedies for curing diabetes/Heart	Dr Meenam Bhatia	Associate Professor, Department of Botany, DRC
4	21 st December 2021	10.00 am- 11.30 pm	Introduction to Lungs diseases, drugs and its mechanism	Dr Anuradha	Assistant Professor, Department of Chemistry, DRC
5	21 st December 2021	11.30 am- 2.00 pm	Natural remedies for curing lung diseases	Dr Aradhana Yadav	Assistant Professor, Department of Botany, DRC
6	22 nd December 2021	10.00 am- 11.30 pm	Introduction to kidney and Gall bladder stone, drugs and its mechanism	Dr Aditi Puri	Assistant Professor, Department of Chemistry, DRC

7	22 nd December 2021	11.30 am- 2.00 pm	Natural remedies for kidney and Gall bladder stone	Dr Leleeka	Assistant Professor, Department of Botany, DRC
8	23 rd December 2021	10.00 am- 1.00 pm	Stroke and rehabilitation	Dr Divya Mathur & Dr Preeti Chadha	Assistant Professor, Department of Chemistry, DRC
9	24 th December 2021	10.00 am- 1.00 pm	Vitamin D deficiency and its natural treatment	Dr Anamika Debnath & Dr Pratibha	Assistant Professor, Department of Chemistry, & Assistant Professor, Department of Botany, DRC
10	25 th December 2021	12.30 pm- 3.00 pm	Immunity booster plants	Dr Avneet Kaur & Dr Vidhi Chaudhary	Assistant Professor, Department of Chemistry, & Assistant Professor, Department of Botany, DRC
11	27 th December 2021	12.30 pm- 2.00 pm	Nanomaterials	Prof. Raj Kishore Sharma	Professor, Department of Chemistry, University of Delhi

DETAILS OF THE COURSE:

1) Description of the course:

The lack of physical exercise and increasing amount of stress has escalated the emergence of new diseases. Further-more, the diseases that were usually observed among the elderly population can now be seen among the young individuals. It's particularly important to recognize diseases that we know can be prevented, slowed, or even reversed with preventive care, changes in diet, exercise, or medications. In the skill development course, our aim was to educate students regarding various common diseases, it's causes, and prevention.

Further, traditional herbal medicines derived from plants are proven clinically effective and have fewer side effects compared to western medicines. But the implementation of these practices has reduced as people are unaware about the benefits they achieve from it. Our aim was to enlighten students about various natural remedies that can be used to cure diseases.

2) Objectives:

- A. To enlighten students about common lifestyle diseases, its symptoms, how it may progress and what treatment options are available
- B. To educate students about natural remedies and herbs that can be used to cure various diseases
- C. To teach the importance of Indian traditional system of medicine, healthy diet and lifestyle.

3) Topics covered:

- A. Introduction of Diabetes, drugs/dosage/mechanism
- B. Natural remedies for curing diabetes/Heart
- C. Introduction to Lungs diseases, drugs and its mechanism
- D. Natural remedies for curing lung diseases
- E. Introduction to kidney and Gall bladder stone, drugs and its mechanism
- F. Natural remedies for kidney and Gall bladder stone
- G. Stroke and rehabilitation
- H. Vitamin D deficiency and its natural treatment
- I. Immunity booster plants
- J. Nanomaterials

Speakers in the course:

Sr. no.	Name	Designation	Department/Affiliation
1	Prof. P.L. Uniyal,	Professor	Department of Botany, University of Delhi
2	Prof. Raj Kishore Sharma	Professor	Department of Chemistry, University of Delhi

Number and Profile of Participants

Number of Students	Department	Year
95	Life Science	1 st year and 3 rd year
12	Chemistry	1 st year and 3 rd year
13	Botany	1 st year and 3 rd year

Methods of Assessment of Participants:

(Test/Assignment/Project/Quiz/Presentation etc.)

1. Questions between and after each session
2. Independent Project submission on topics other than those discussed in class. Some of which are as follows-

- Ebola virus treatment by natural remedies
- PCOS and its treatment
- Migraine and its treatment
- Malaria and its natural treatment
- Tuberculosis
- Pulmonary edema
- Comedo- Skin infections

Many More.....

Detailed Learning Outcomes of the Course

1. Students learned about prevention and cure of various diseases
2. Students could understand the importance of Indian medicinal plants
3. Students gained in depth and scientifically proven knowledge about natural medical plants.

Feedback from Participants Regarding the Program:

Students enthusiastically participated in the SDP and we got overwhelming response.

Students reported that the SDP was informational and more such educational events should be organized in near future preferably during their holidays

Name	Course	College/Institution	Did you find the topic of SDP relevant?	Have you learned anything new?	Please rate talks delivered by the speakers	Would you like to have such programs in near future	Any other remark
Rizul	B.Sc. (Prog.) Life Science	Daulat Ram College	Yes	Yes	Very good	Yes	No
Shobha	BSc life science	Daulat Ram College	Yes	Yes	Excellent	Yes	NA
Bhumika	Bsc in lifescience	Daulat Ram college	Yes	Yes	Excellent	Yes	.
kunika siddhu	bsc life science	daulatram college	Yes	Yes	Excellent	Yes	NA
Akansha Adhikari	Bsc(prog) life sciences	Daulat ram college	Yes	Yes	Very good	Yes	No
Aparna Maheshwari	BSC life science	Daulat Ram College	Yes	Yes	Very good	Yes	No
Saman Razi	B.Sc.(hons)Botany	DRC college DU	Yes	Yes	Excellent	Yes	It was a good experience I learnt alot new things from this program thanku teachers for this great opportunity
Saniya Singh	Bsc Hons Chemistry	Daulat Ram College	Yes	Yes	Very good	Maybe	No
Isha	B.Sc Botany Hons. II Year	Daultram College/DU	Yes	Yes	Excellent	Yes	NA
Isha Dagar	Bsc life sciences	Daulat Ram college	Yes	Yes	Excellent	Yes	I would like if teachers make these programs more lively and interactiveasking more and

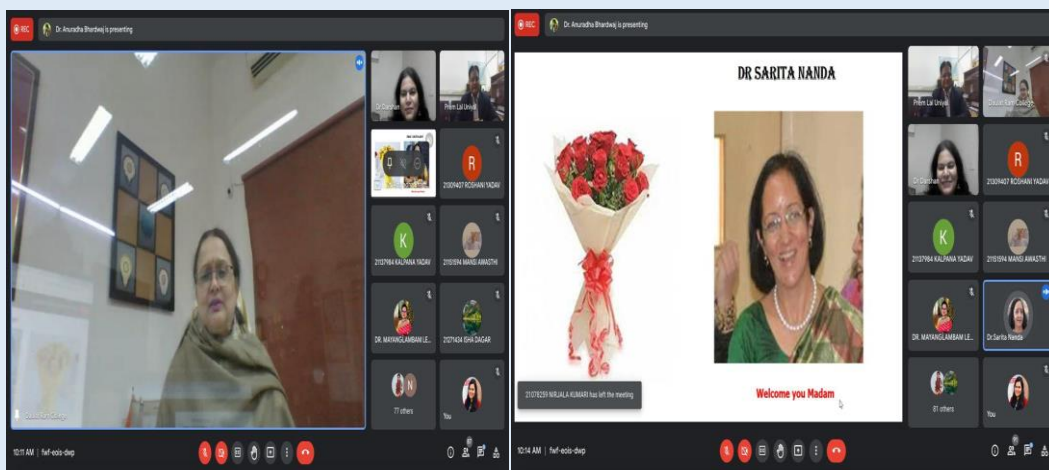
							more questions
Kriti chandra	B.Sc life science	Daulat ram college	Yes	Yes	Excellent	Yes	SDP was a great initiative and I've learned a lot of new things.
Jessica	Bsc life science	Daulat ram college	Yes	Yes	Good	Maybe	well explained
Pragati Singh	Bsc life science	Daulat Ram College	Yes	Yes	Very good	Yes	It was very informative session .
kunika siddhu	bsc life science	daulatram college	Yes	Yes	Excellent	Maybe	NA
Roshni	Bsc life science	Daulat Ram College	Yes	Yes	Excellent	Yes	It's a great initiative, we learn a lot of general knowledge of our body thanks mam ❤️
Dipika	bsc life science	Daulat ram college	Yes	Yes	Very good	Maybe	Overall good
Swati Nishad	BSC botany department	Daulat Ram College	Yes	Yes	Excellent	Yes	No
Heena Gupta	Bsc prog Life science 3rd year	Daulat Ram College	Yes	Yes	Very good	Yes	-
Ashna Hassan	B.Sc. (Prog) Life Science	Daulat Ram College	Yes	Yes	Excellent	Yes	I just want to say that SDP has really enhance my knowledge and i really like to attend such programs in future.
Mansi awasthi	Bsc lifescience	Daulat ram college	Yes	Yes	Excellent	Yes	I was so helpful to us. So

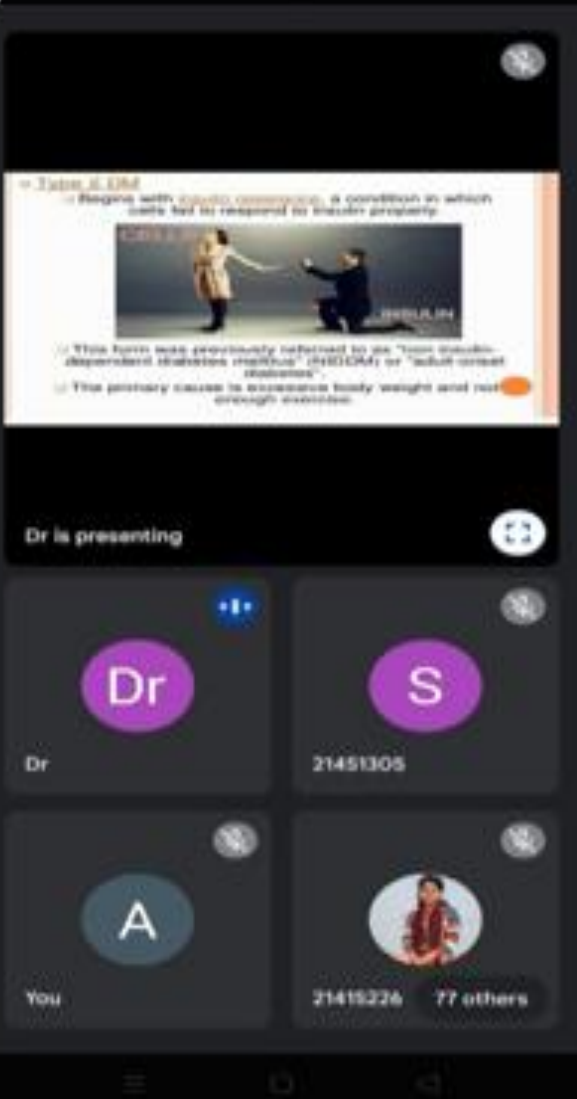
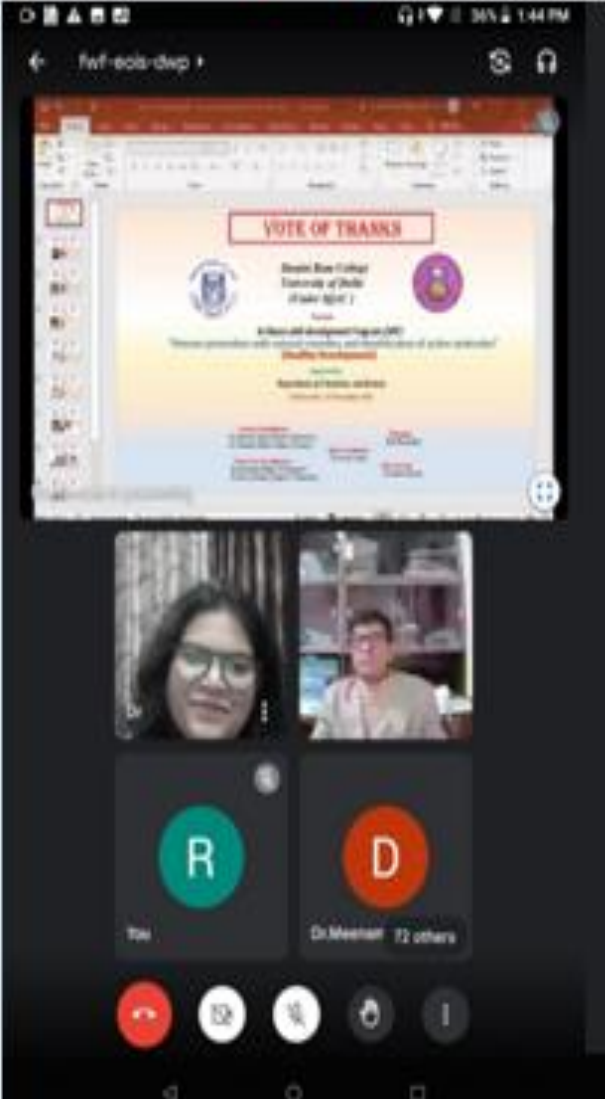
							thank you all for this
Anjali	B.Sc. Chemistry Hons	Daulat Ram College	Yes	Yes	Excellent	Yes	No
Kaamila	Bsc life science	Daulat ram college	Yes	Yes	Excellent	Yes	Gained a lot of knowledge . Learned a lot from the sdp.
Rishita Badan	Bsc life science	Daulat ram	Yes	Yes	Excellent	Yes	It was really amusing to know about the diseases which indeed are really common and their treatment in each possible way especially by self with nature remedies.
Jhanvi Joshi	Bsc. Life Sciences	Daulat Ram College	Yes	Yes	Excellent	Yes	No
Sofiya Akhtar	Bsc prog life science	Daulat ram college	Yes	Yes	Excellent	Yes	This sdp was very good. And it helped me to increase my knowledge .
Ridima	Bsc life science	Dault Ram College	No	Yes	Very good	Yes	No
Taniya ahmed	Bsc life science	Daulat ram college	Yes	Yes	Excellent	Yes	Thank you so much for bringing new learning

							opportunities for us
Mehak Chaudhary	Bsc(hons) Botany	Daulat ram college	Yes	Yes	Very good	Yes	I found this sdp topics very interesting.Waiting for such more workshop to participate
Deepali kashyap	Bsc life science	Daulat Ram College	Yes	Yes	Excellent	Yes	No
Priyanshi Singh	Bsc (life science)	Daulat ram college	Yes	Yes	Good	Maybe	No
Aparna	Bsc.Life Sciences	Daulat Ram College	Yes	Yes	Excellent	Yes	Thank you professors
KRIKA GARG	B.Sc(Prog.)Life Science	Daulat Ram College	Yes	Yes	Excellent	Yes	This SDP was very informative. It widened my knowledge spectrum.
Sakshi	Bsc. Life science	Daulat ram college, Delhi University	Yes	Yes	Excellent	Yes	SDP was really helpful. Helped us learn a lot of new things.
Afreen Zehra	B.Sc(hons) Botany	Daulat Ram College	Yes	Yes	Excellent	Yes	Nice session
Kalpna yadav	Bsc program life sciences	Dalut ram College	Yes	Yes	Excellent	Yes	No
Arpita kumari	Bsc botany	Daulat ram college	Yes	Yes	Excellent	Yes	Very interesting, knowledgeable, & great sessions
Tooba Iram	Bsc life science	Daulat Ram College	Yes	Yes	Excellent	Yes	Thank you so much for such a wonderful program....r

							eally very helpful sessions.
SUMIT KUMARI	B.Sc Life Sciences Prog.	DAULAT RAM COLLEGE , DELHI	Yes	Yes	Excellent	Yes	No
Stanzin zangmo	B.sc life science	Daulat ram college	Yes	Yes	Excellent	Yes	If this of programs will held weekly in colleges will be very grateful and knowledge able for us. Thanks for giving all your precious time.
Monu	B. Sc life science	Daulat Ram College	Yes	Yes	Excellent	Yes	No
Tanushree khobragade	Bsc life science	Daulat ram college	Yes	Yes	Excellent	Yes	No
Abhilasha	Bsc life science	Daulat Ram College	Yes	Yes	Excellent	Yes	No

A Few Photographs (student activity oriented photographs only/activity photos):





ENGLISH AND PSYCHOLOGY DEPARTMENT

Collaborating Departments: Departments of English and

Psychology**Title of the Course:** Gender Studies

Sub-theme: Learning Abilities and Healthy Development

Course Coordinators: Dr. Deepshikha Mahanta Bortanmuly (Convenor)

Lt. Dr. Suparna Jain Thakur (Convenor)

Dr. Rajni Sahni (Convenor)

Ms. Saneya (Executive Member)

Dr. Violina (Executive Member)

Duration with dates: One-week long from 20th December 2021 to 28th December 2021

Sr. No.	Date	Time	Module/Topic Title	Name of the Speaker	Affiliation of the Speaker
1	20-12-21	10pm-11am	Inaugral Session Keynote Address Gender and Culture	Dr. Harinder M Sandhu	Associate Professor, Mata Sundri College For Women
2	20-12-21	11:30- 1:00pm	Women,Community and South Asian Literature in English	Dr. Dolika Jyoti Sharma	Assistant Professor Department of English, Gauhati University
3	20-12-21	2:30-4:30 pm	Introductory Interaction	All	
4	21-12-21	10-12	Gender Role: Attitudes and Stereotype	Dr. Rajni Sahni	Associate Professor, Psychology ,DRC

5	21-12-21	2:30-4:30	Workplace and Gender Divides	Dr. Kshitija Wason	Assistant Professor, Psychology ,DRC
6	22-12-21	11-1	Gendered Literature Gendering Literature and Cultured Formulations	Dr. Deepshikha Mahanta Bortamuly	Associate Professor, English, DRC
7		2:30-4:30	Gender Representations: Select Problematics in Popular Culture and Media	Ms. Saneya	Assistant Professor, English, DRC
8	23-12-21	11:30-1:30	Gender in the Psychological Context	Lt. Dr. Suparna Jain Thakur	Assistant Professor, Psychology , DRC
9	23-12-21	2:30-4:30 pm	Gender in the Social Context	Dr. Violina Borah	Assistant Professor , English , DRC

This was followed by Students' presentations on 27th and 28th December 2021

Details of the course:

1) Description of the course:

2) Objectives:

- A. To sensitize students to the covert and overt working of Gender around them
- B. To foster a sense of understanding Gender Identity, Roles and Attitudes
- C. Identifying Gender stereotypes and Segregation
- D. To give them critical tools to negotiate with the Gender issues

Topics covered:

- a) Women , Community and South Asian Literature in English
- b) Gender in Literature

- c) Gender Attitudes and Stereotypes
- d) Representation of Gender in Popular Culture
- e) Psychological Effects of Sexism
- f) Benevolent Sexism and Microaggressions
- g) Workplace and Gender Divide
- h) Gender in the Social Context

Speakers in the Course :

Sr. No.	Name	Designation	Department/ Affiliation
1	Dr. Harinder M Sandhu	Associate Professor	Mata Sundri College for Women
2	Dr. Dolika Jyoti Sharma	Assistant Professor	D/o English Gauhati University
3	Dr. Rajni Sahni	Associate Professor	D/o Psychology , DRC
4	Dr. Kshitija Wason	Assistant Professor	D/o Psychology , DRC
5	Dr. Deepshikha Mahanta Bortamuly	Associate Professor	D/o English , DRC
6	Ms. Saneya	Assistant Professor	D/o English, DRC
7	Lt. Dr. Suparna Jain Thakur	Assistant Professor	D/o Psychology, DRC
8	Dr. Violina Borah	Assistant Professor	D/o English, DRC

Number and Profile of Participants:

No of Students	Department	Year
05	Psychology	Third year
13	English	Third year
01	Commerce	Third year
01	History	Third year

Methods of Assessment of Participants :

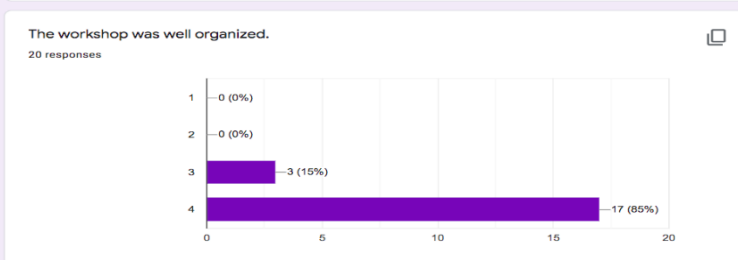
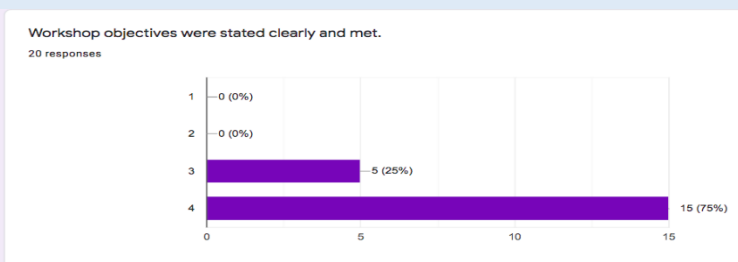
(Test/ Assignment/ Project/Quiz/Presentation etc.)

1. Online Presentation

Detailed Learning Outcomes of the Course:

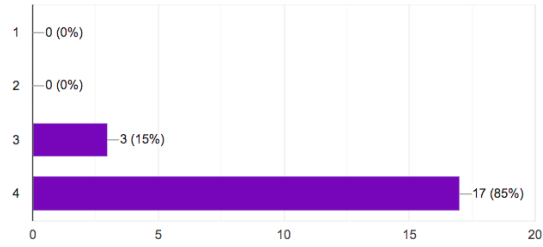
1. Developing an informed, better perspective as well as a healthy attitude with respect to gender and related concerns
2. Understanding how various factors like media and culture also play a significant role in widening the gender gap or reducing it , along with providing a better and cleaner perspective.
3. Foster an ability to discern the active and growing presence of gender-based issues of identity, expressions, deviations, articulations, and attitudes.
4. How deep rooted is the concept of gendering which the students witness in their daily discourses.
5. Understanding subtle gender biases, kinds of sexist attitudes and understanding the workings of gender in socio -political- cultural context.
6. Practise building up necessary tools to access (and hopefully negotiate with) the extent and degree of the role of Gender in creating socio-cultural constructs around us.

Feedback from Participants Regarding the Program:



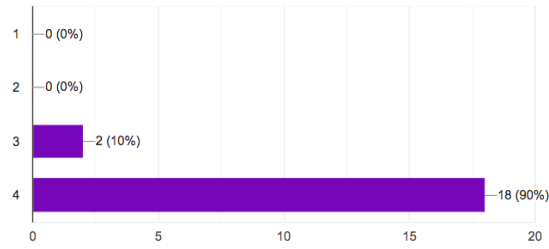
The presenter allowed me to work with and learn from others.

20 responses



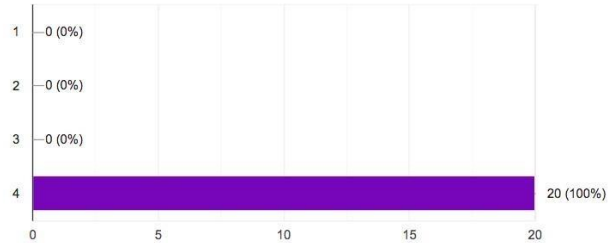
The presenters were knowledgeable in the topic.

20 responses



I would recommend this programme to others.

20 responses



Please share any other comments you have regarding this workshop

20 responses

Great program – really well organized, with plenty of detail in each section. I really enjoyed the program. All the concepts and the material presented was very eye opening and informative. Loved it!

It was an enriching workshop

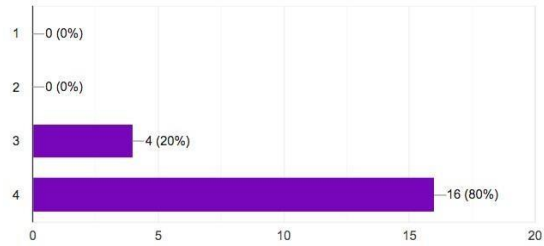
Wonderful initiative and well organized

I really like how every presenter brought a new topic to the table and engage in interactive sessions. At the conclusion of one topic I could see how every topic in linked in the real world and also while discussing the whole program.

When I attended GDP by made I was really surprised how many people attended if we were just

The presenter(s) modeled student-centered learning strategies and techniques.

20 responses



This workshop increased my knowledge and skills in

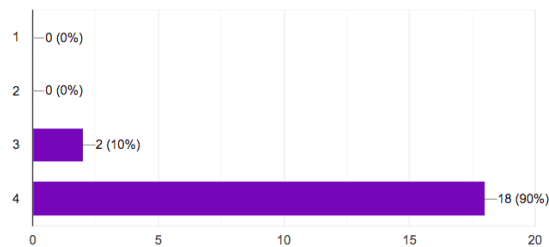
20 responses

This actually helped me to enhance my knowledge about gender equality, gender discrimination and it's sensitivity. Gender accommodating was something new to me which actually means not only being aware of gender gender differences but also adjusting and adapting to those differences. To maintain gender balance in our society is very crucial.

It has raised how patriarchy is seen in subtle ways like while watching a movie directed by man and another movie by a woman has huge differences, not only how the characters are presented but also at how men 'look' at women. The SDP taught me to understand what makes me a female - Is it the way I dress? Or define my 'gender role'? It raised awareness, questions and differences of what is gender.

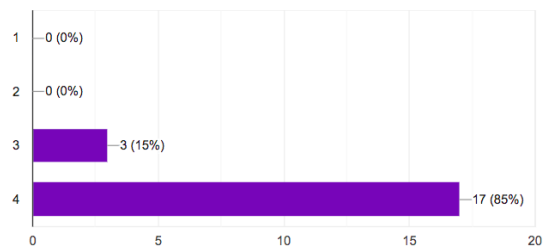
The information and/or skills presented were relevant and useful.

20 responses

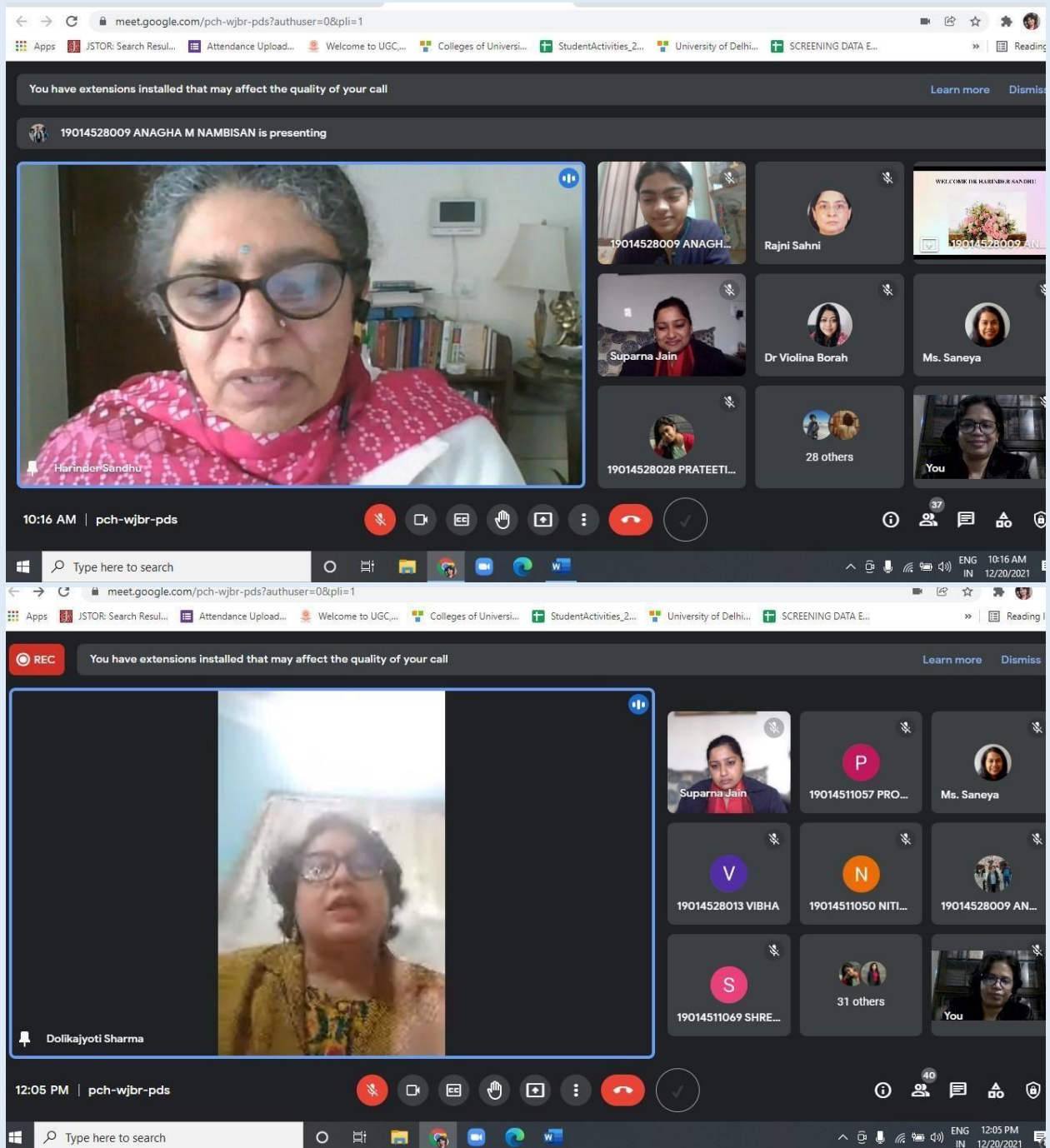


The presenter(s) provided adequate time for questions and answered them satisfactorily.

20 responses




A Few Photographs (student activity oriented photographs only/activity photos):



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Dr Kshitija Wason is presenting



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Dr Kshitija Wason

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Dr. Violina Borah

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Ms. Saneya

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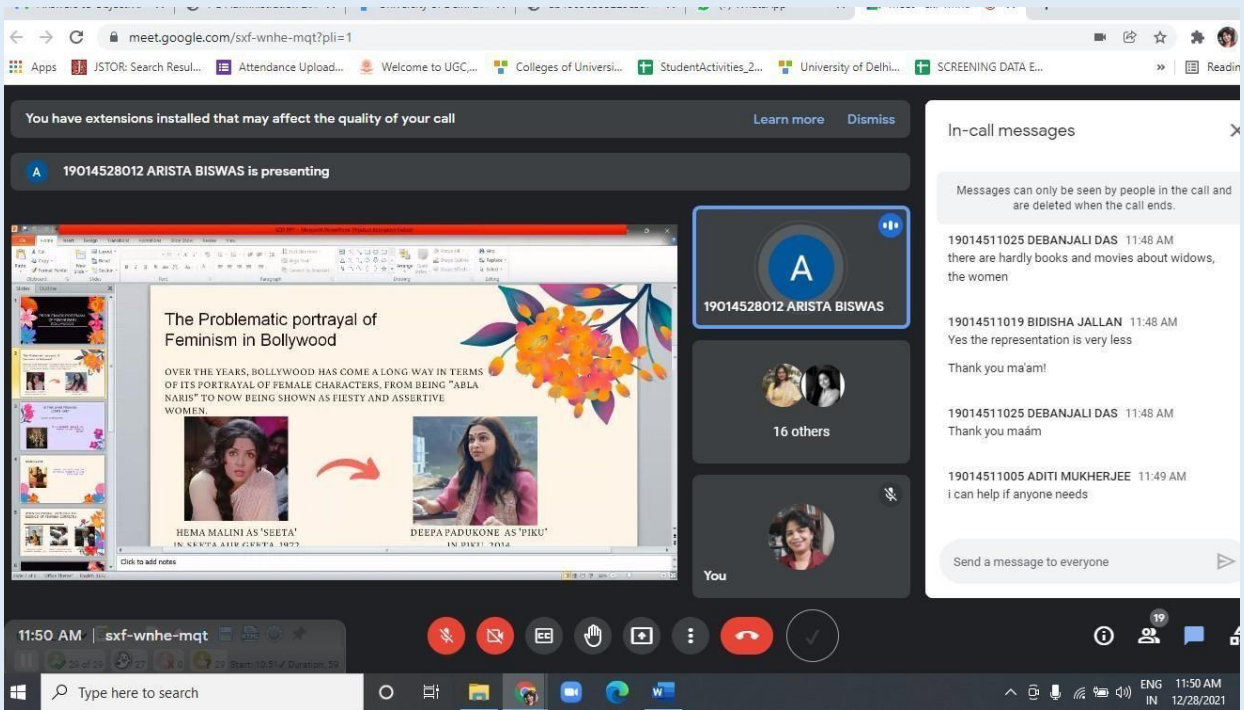
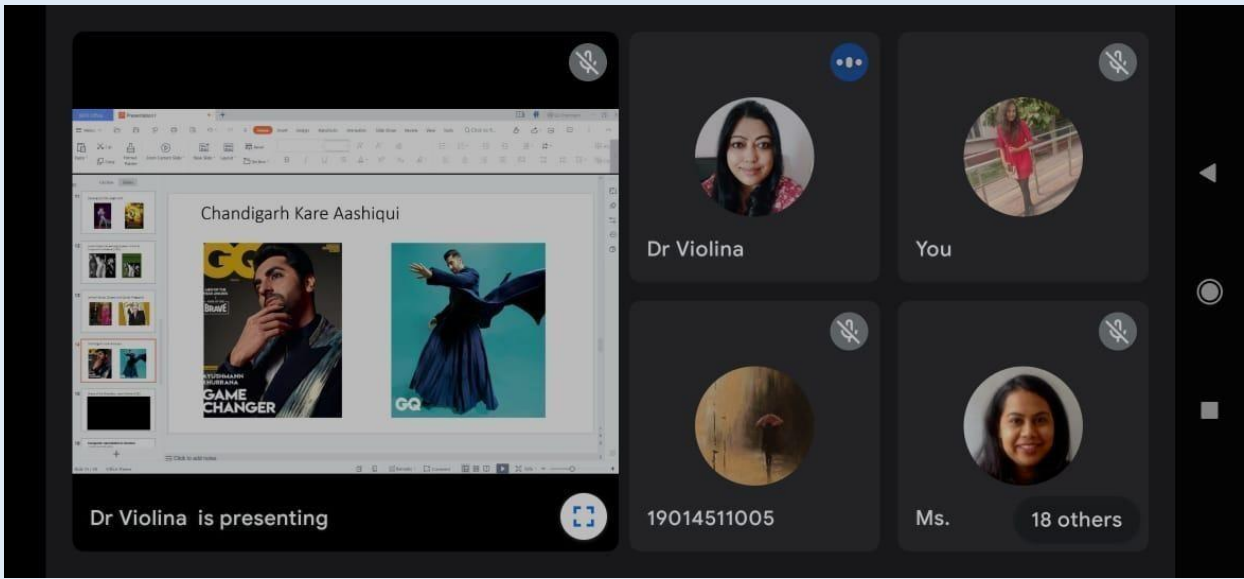
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SANSKRIT AND NHE DEPARTMENT

Patron : Prof. Savita Roy

Convener: Dr. Meetu Khosla (SDP 2021-2022)

Coordinator (VVS, DU) : Dr. Malini Sharma (DRC)

Coordinators : Dr. Chayan Menta (GGC, Jodhpur, Raj.)

: Dr. Pooja Jain (Dept. of NHE, DRC)

: Dr. Kamna Vimal (Dept. of Sanskrit, DRC)

Objective:

With an aim to promote healthy development of the students of the students through the life affirming components like Yoga and Healthy Lifestyle, the Departments of Nutrition and Health Education and Sanskrit of Daulat Ram College have jointly organised the two weeks online Skill Development Programme during December 27, 2021 – January 8, 2022 under the SDP 2022.

Participating Beneficiaries:

The students of Daulat Ram College (UG & PG) and Government Girls College, Magra Punjala, Jodhpur, Rajasthan and Government College, Choutan, Barmer, Rajasthan.

Resource Persons:

Faculty of Departments of Sanskrit and Nutrition and Health Education and Bio-chemistry of Daulat Ram College along with two external speakers:

- Dr. Renu Kishore (Associate Professor (Retd.), Dept of Psychology, Psychologist & Counsellor)
- Dr. Pooja Jain (Associate Professor, Dept of Nutrition and Health Education)

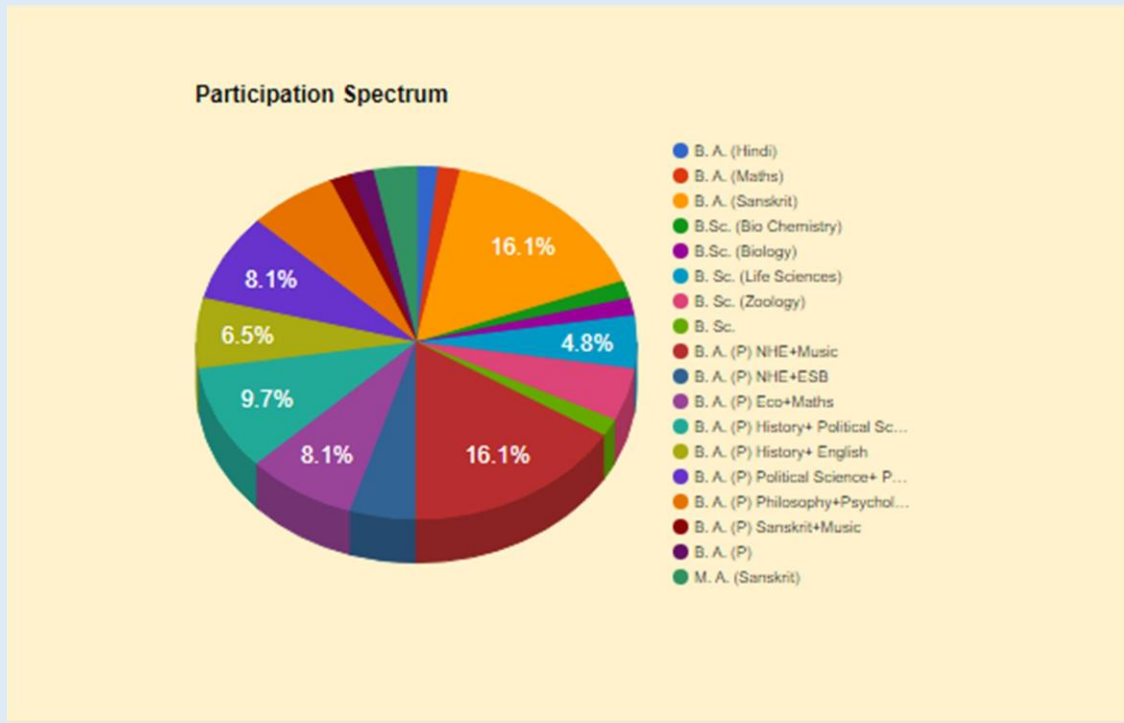
- Mrs. Priyanka Verma (Assistant Professor, Dept of Nutrition and Health Education)
- Dr. Meetu Khosla (Associate Professor, Dept of Psychology)
- Dr. Sharda Gautam (Assistant Professor, Dept of Sanskrit)
- Dr. Ritu Jain (Assistant Professor, Dept of Nutrition and Health Education)
- Dr. Ravi K. Meena (Assistant Professor, Dept of Sanskrit)
- Dr. Shashi Sharma (Assistant Professor, Dept of Sanskrit)
- Dr. Anita Garga Mangla (Assistant Professor, Dept of Bio-chemistry)
- Dr. Sushma Devi (Assistant Professor, Dept of Sanskrit)
- Dr. Rosy Sharma (Assistant Professor, Dept of Sanskrit)
- Dr. Kamna Vimal (Assistant Professor, Dept of Sanskrit)
- Dr. Omanand (Mentor, Paramanad Yoga Institute)

Schedule:

The SDP was scheduled from December 27, 2021 – January 1, 2022 with two sessions everyday but due to on-going examinations and other factors, it was rescheduled to one session everyday at 3:30 pm from December 27, 2021 – January 8, 2022. The SDP had 2 plenary sessions i.e. the Inaugural and Valedictory sessions and 10 technical sessions in all. The detailed schedule is attached with the report.

Registration Process:

The registrations for the SDP were invited from students of Daulat Ram College and its partner colleges under Vidya Vistara Scheme of University of Delhi which are Government Girls College, Magra Punjala, Jodhpur, Rajasthan and Government College, Choutan, Barmer, Rajasthan. The Program received an enthusiastic response and hence, the registration had to be closed within two days of its announcement. Total 65 registrations were received from about students of 10 disciplines. It included 7 students – Soniya Deora, Payal Parihar, Rudrakshi, Lalita, Bhoomika, Payal and Nandini - from the Government Girls College, Magra Punjala, Jodhpur, Rajasthan. After screening of invalid entries and pre-informed drop-outs, the SDP started with total 62 participants.



Inaugural session :

Date: December 27, 2021

Time: 10:00 am

Guest of Honour & Speaker: Dr. Renu Kishore (Associate Professor (Retd.), Dept of Psychology, Psychologist & Counsellor)

The Inaugural session of the SDP started with Vedic Mangalacharan by Pratibha and Priya, students of the Department of Sanskrit. The session was anchored by Kashish, a Sanskrit Department student. The event was presided over by Prof. Savita Roy, Principal, Daulat Ram College. Virtual bouquets were presented to all during the felicitation part. In her keynote address, Prof. Roy emphasized upon the role played by Yoga and Nutrition in forming different types of environment and thus contributing to the holistic development and wellbeing of a being. She extended her best wishes for the beautiful and the popular programme. Sh Babulal Meghwal, Principal, Govt. College, Choutan, Barmer, Rajasthan appreciated the SDP and emphasized upon the significance of Yoga in improving emotional quotient and mental health. He applauded Yoga as it talks about

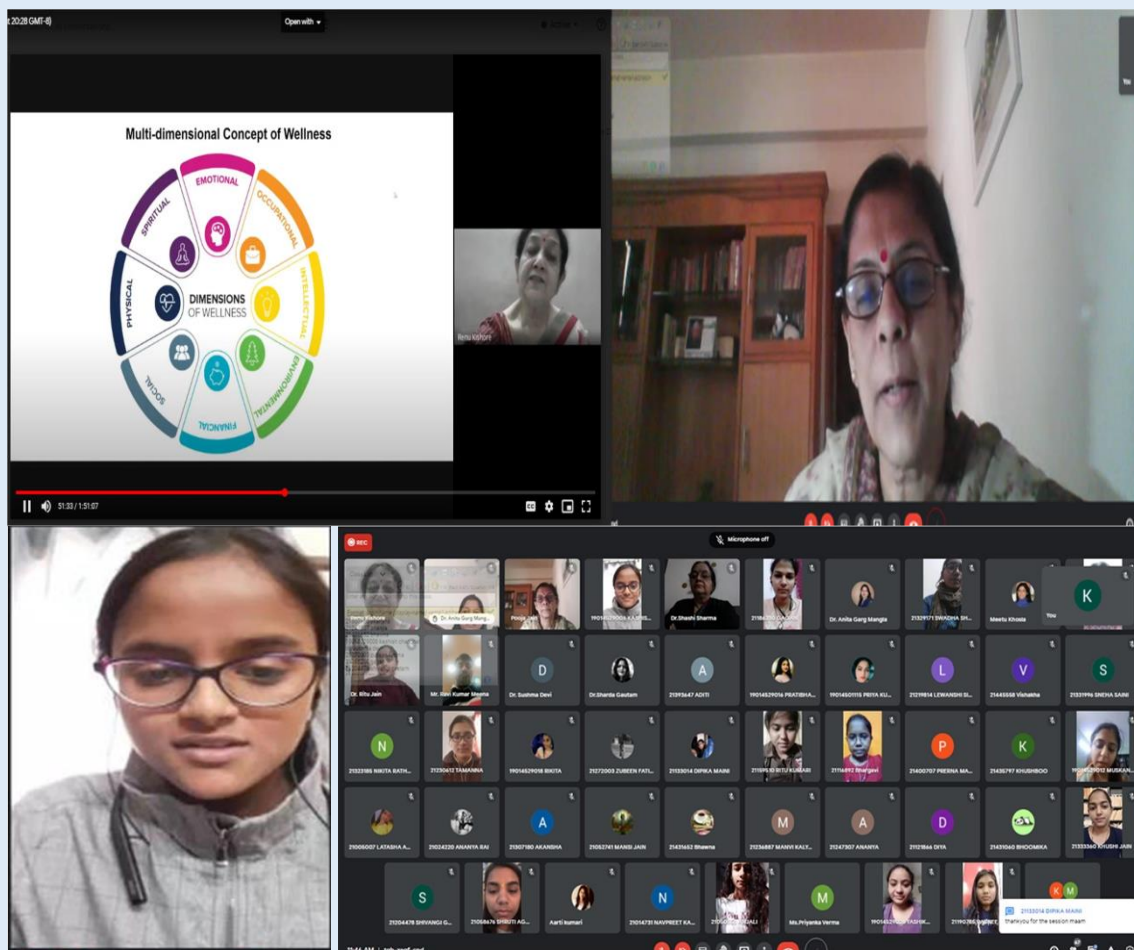
discipline before knowledge. Dr. Sarita Nanda, Vice Principal, Daulat Ram College

highlighted the importance of Yoga in the present pandemic period over gym as the latter causes stress. She described Yoga and Nutrition as the way to a balanced life. Dr. Chayan Mehta hailed Yoga as the way of life towards a healthier way of life and reassured her cooperation in making students from GGC, Jodhpur, Rajasthan participate in the SDP.

Further, Dr. Pooja Jain presented a brief layout of the SDP and introduced everyone to the Guest of Honour of the session Dr. Renu Kishore as the friend of every DRCian. Dr. Renu Kishore congratulated the organisers for choosing the very relevant topic. She discussed the multi-dimensional concept of Wellness and introduced the practical positive psychology concepts and techniques to ensure holistic health and enhance wellness. She also addressed the query raised by the participants.

Dr. Kamna Vimal presented the vote of thanks. The session ended with shantipatha by Yashika, a Sanskrit Department student.





Date: 28th December 2021

Time: 3:30-5:00pm

Resource Persons: Pooja Jain, Priyanka Verma

Topic: i) Components of wellness

ii) Guidelines for healthy eating

Under the topic ‘Components of Wellness’, Dr. Pooja Jain presented the eight components of wellness and explained ways to achieve optimum wellness. She touched upon strategies like social connectedness, nutrition, sleep, exercise, mindfulness and yoga.

Under the topic ‘Guidelines for Healthy Eating’, Mrs. Priyanka Verma explained in detail the guidelines laid down by Indian Council for Medical Research. These were categorised into three main categories:

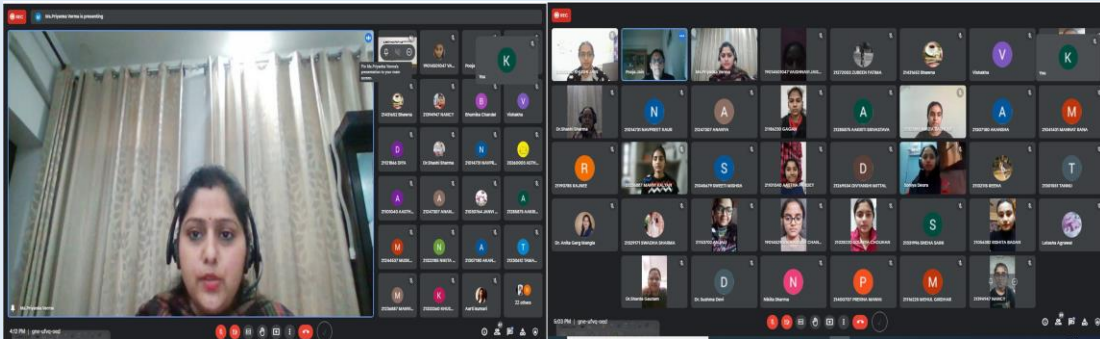
- i. Guidelines to ensure nutritional adequacy and prevent diseases.
- ii. Guidelines to maintain an ideal body weight and prevent diet related chronic

diseases.

iii. Guidelines regarding food related practices.

She gave appropriate examples to support each concept.

Question-answer round took place after the presentations for better understanding and clearing doubts of the participants and there was whole-hearted participation by all.



Date: 29th December 2021

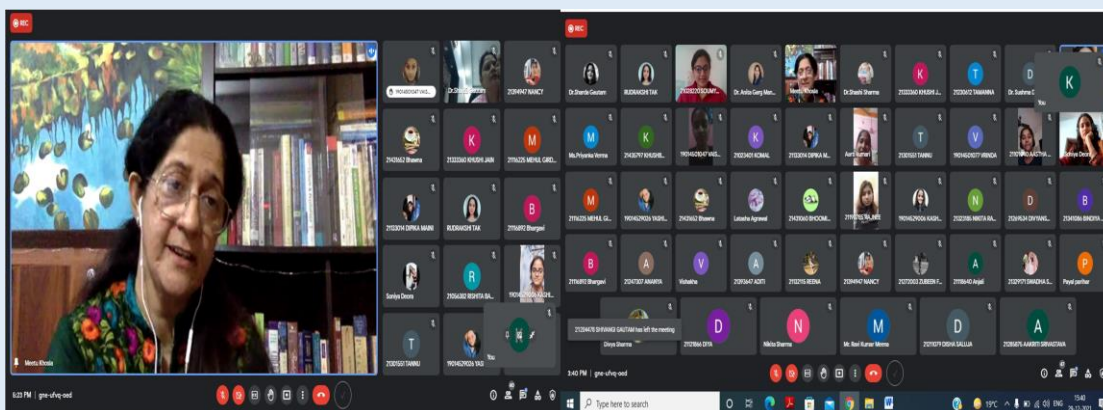
Time: 3:30-5:00pm

Resource Persons: Dr. Meetu Khosla

Topic: Yoga & Mental Health

Dr. Sharda Gautam introduced the resource person for the session, Dr. Meetu Khosla. Dr. Khosla, in her talk, highlighted the role of Yoga in enhancing mental health. She discussed the eight limbs and four types of Yoga. She suggested the practical techniques of enhancing mental health and also conducted a practical activity to improve balance of mind. The Q/A session at the end had queries raised by the students which were answered by her very patiently. Vote of thanks was presented by Dr. Sharda Gautam.

Date: 30th December 2021



Date: 30th December 2021

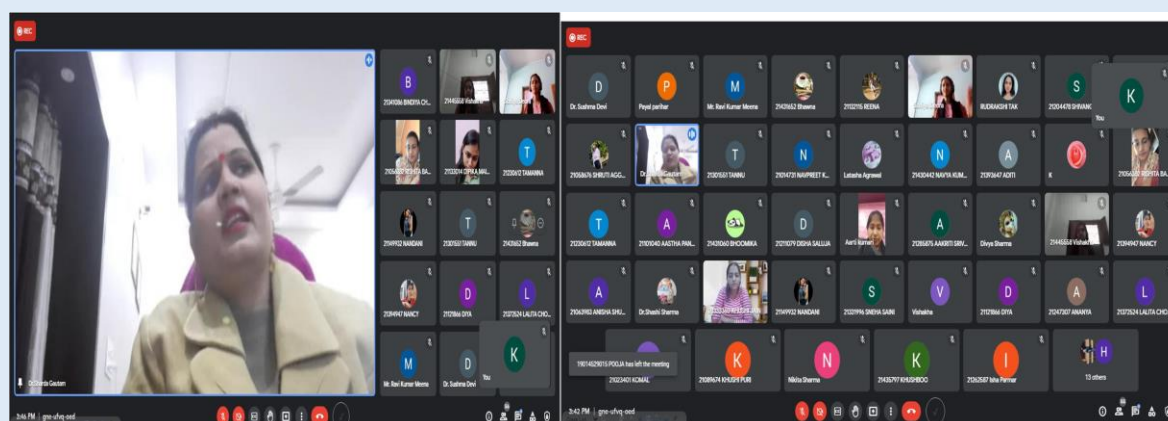
Time: 3:30-5:00pm

Resource Persons: Dr. Sharda Gautam

Topic: Jnana Parampara Mein Svastha Jeevan Charya

Dr. Kamna Vimal presented the introduction of the resource person of this session, Dr. Sharda Gautam. Dr. Gautam started with the introduction and history of Jnana Parampara and the definition of Ayurveda. She talked about the traditional knowledge of Ayurveda and its practical aspects to present a comprehensive idea of healthy lifestyle.

Vote of thanks was presented by Dr. Kamna Vimal.



Date: 31th December 2021

Time: 3:30-5:00pm

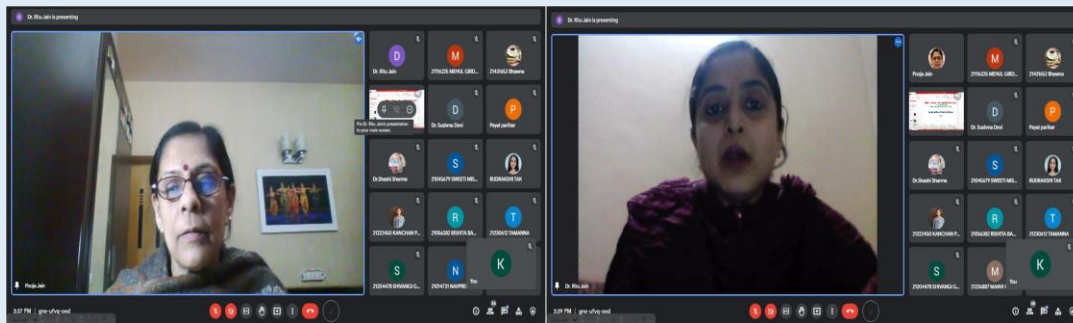
Resource Persons: Dr. Ritu Jain , Dr Pooja Jain

Topic: Construction of Healthy Menu

Dr. Pooja Jain presented the introduction of the resource person of the session, Dr. Ritu Jain. Dr. Ritu, in her presentation on *Know Your Food*, talked about the nutritive value of various components of food. She emphasized upon the need to have rainbow coloured food i.e. having variety of food items, vegetables, grains etc in every diet.

Dr. Pooja Jain and Dr. Ritu Jain both entertained the queries from the participants and also had an interactive Q/A session wherein the participants also suggested their ideas on how to add to the nutritive value of the regular food options.

Vote of thanks was presented by Dr. Pooja Jain.



Date: 1st January 2022

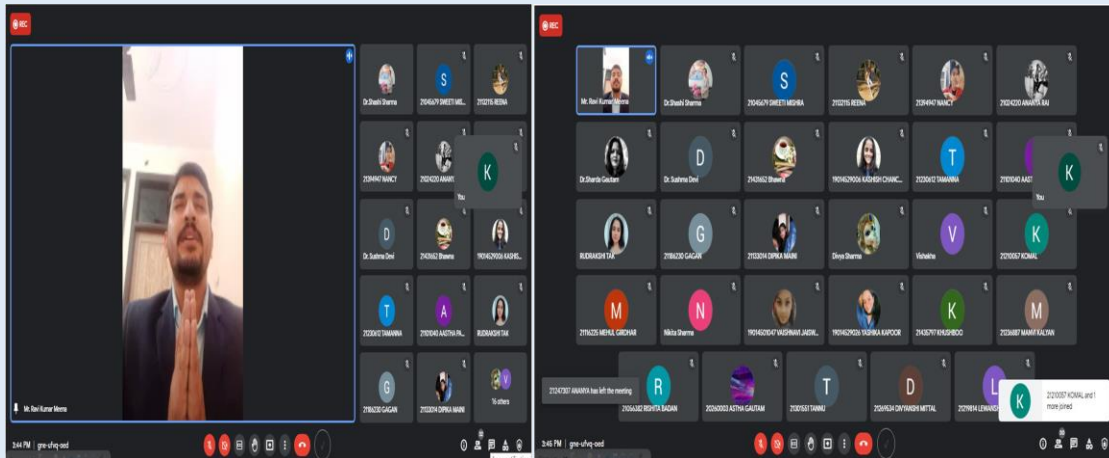
Time: 3:30-5:00pm

Resource Persons: Dr. Ravi Kumar Meena

Topic: Sharirika Svasthya Evam Yoga

Dr. Shashi Sharma presented the introduction of the resource person of the session, Dr. Ravi Kumar Meena. Dr. Meena started with the definition and history of Yoga in Indian tradition and the major treatises on Yoga. He deliberated upon the eight limbs of Ayurveda in detail.

Vote of thanks was presented by Dr. Shashi Sharma.



Date: 3rd January 2022

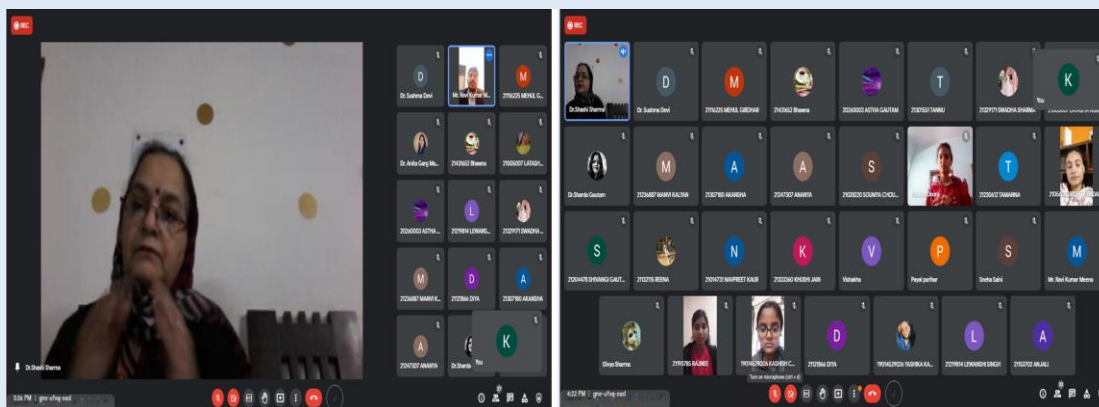
Time: 3:30-5:00pm

Resource Persons: Dr. Shashi Sharma

Topic: Dhyana Evam Pranayama Dvara Chitta Prabandhana

Dr. Ravi Kumar Meena presented the introduction of the resource person of the session, Dr. Shashi Sharma. Dr. Sharma, in her three segmented talk, declared Yoga to be the Mean as well as the goal of Bhagwadprapti. She also discussed the different types of Vayu in a human body. She also talked about the importance of Gayatri chanting. She also took a practical session and demonstrated the two major Yogic Techniques i.e. Isha and Ujjayi pranayamas to ensure better concentration and balance of mind. The participants also performed these practices. They participated whole-heartedly in the interactive session.

Vote of thanks was presented by Dr. Ravi K. Meena.



Date: 4th January 2022

Time: 3:30-5:00pm

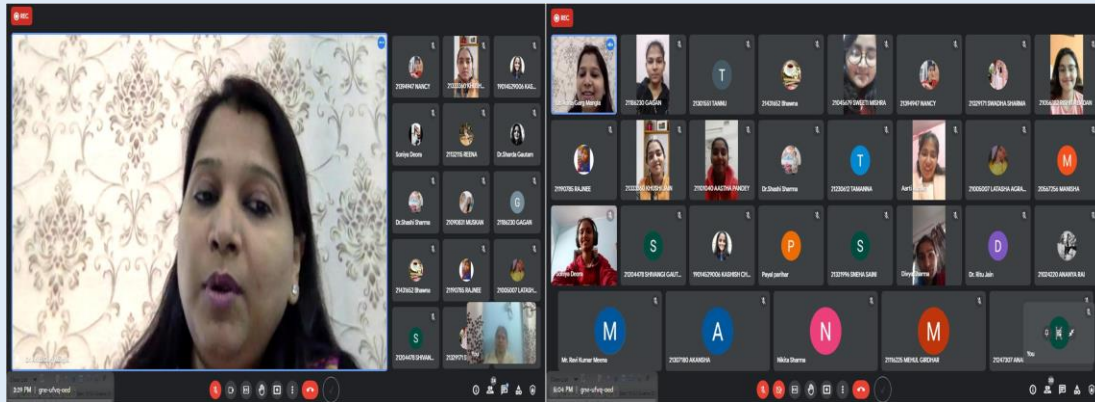
Resource Persons: Dr. Anita Garg Mangla

Topic: Know Your Prakriti: Dos and Don'ts

Dr. Kamna Vimal presented the introduction of the resource person of the session, Dr. Anita Garg Mangla. Dr. Mangla described the basic definition of Ayurveda and its importance for a healthy lifestyle. She then described the three types of Prakritis i.e. Vata, Pitta and Kapha and their distinguishing features. Through an exercise, comprising 21 points related to the individual characteristics, she encouraged the participants to understand their own Prakriti and also suggested the remedial or corrective measures to gain the ideal state

i.e. the balance of the three. The session was highly interactive with all the participants actively participating and getting answers to their queries.

Vote of thanks was presented by Dr. Kamna Vimal.



Date: 5th January 2022

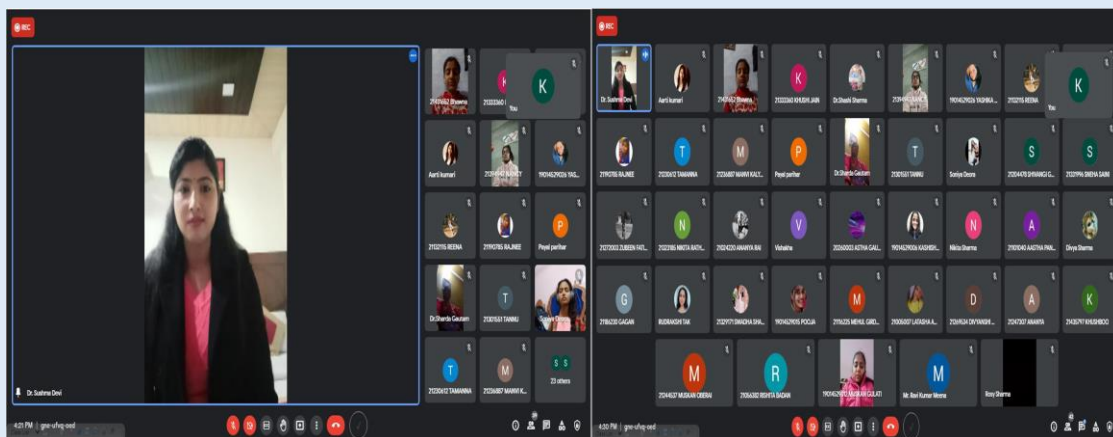
Time: 3:30-5:00pm

Resource Persons: Dr. Sushma Devi

Topic: Mana Evam Atmashakti Samvardhana

Dr. Kamna Vimal presented the introduction of the resource person of the session, Dr. Sushma Devi. Dr. Sushma described the mana as the root cause of all the mental and psychological issues as well as the means to control oneself. She also suggested techniques to improve Atmashakti by the means of Pranayamas. She also addressed the participants' queries in a positive manner.

Vote of thanks was presented by Dr. Kamna Vimal.



Date: 6th January 2022

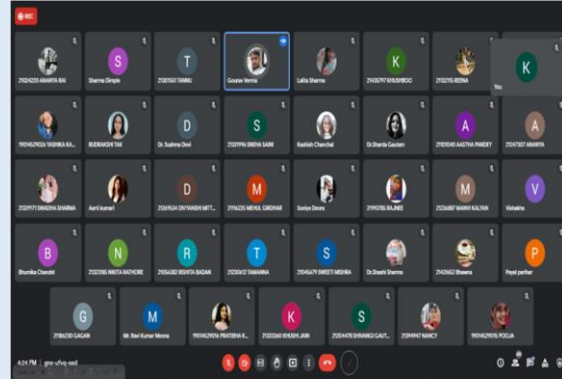
Time: 3:30-5:00pm

Resource Persons: Dr. Rosy Sharma

Topic: Yoga Dvara Atmaprabandhana

Dr. Kamna Vimal presented the introduction of the resource person of the session, Dr. Rosy Sharma. Dr. Sharma described the importance of managing oneself to ensure a balanced lifestyle. She described the five step way of managing oneself and thus managing one's life effectively.

Vote of thanks was presented by Dr. Kamna Vimal.



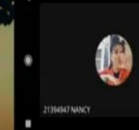
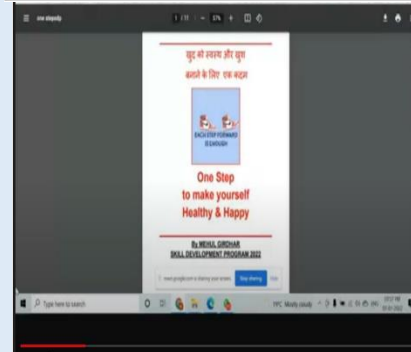
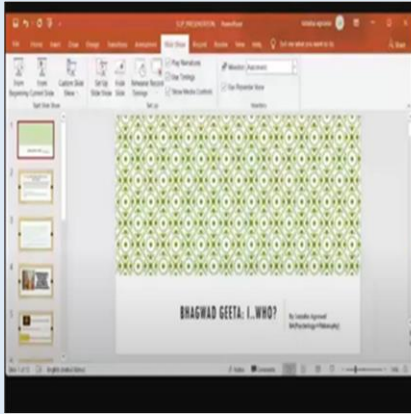
Date: 7th January 2022

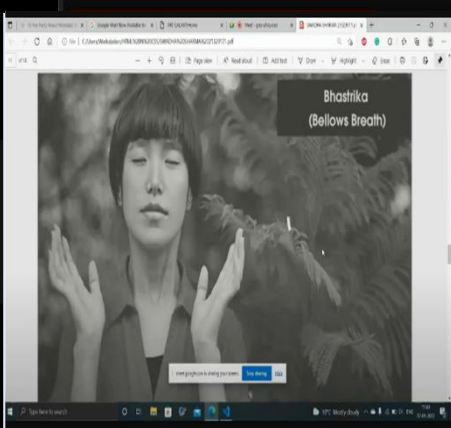
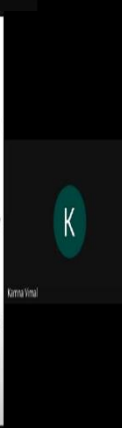
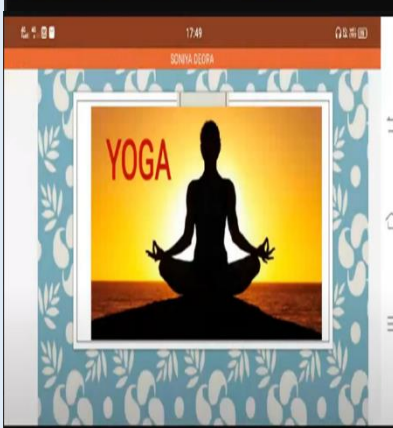
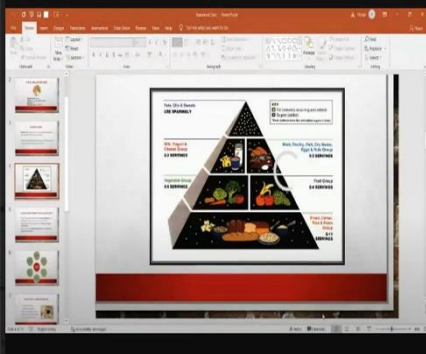
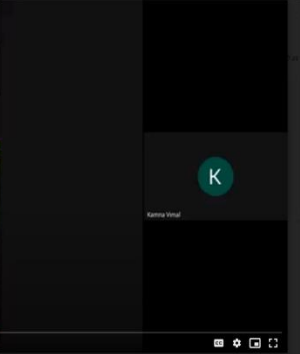
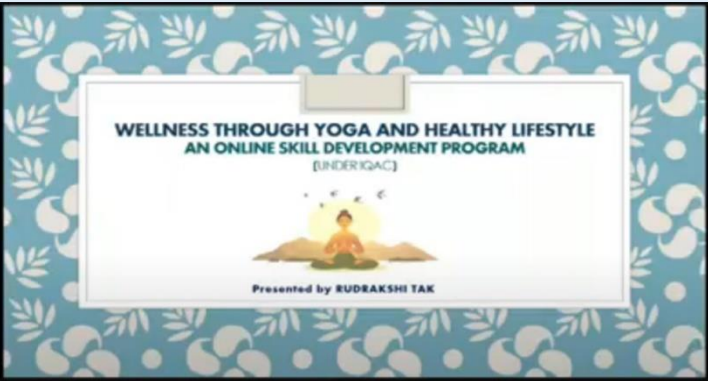
Time: 3:30-5:00pm

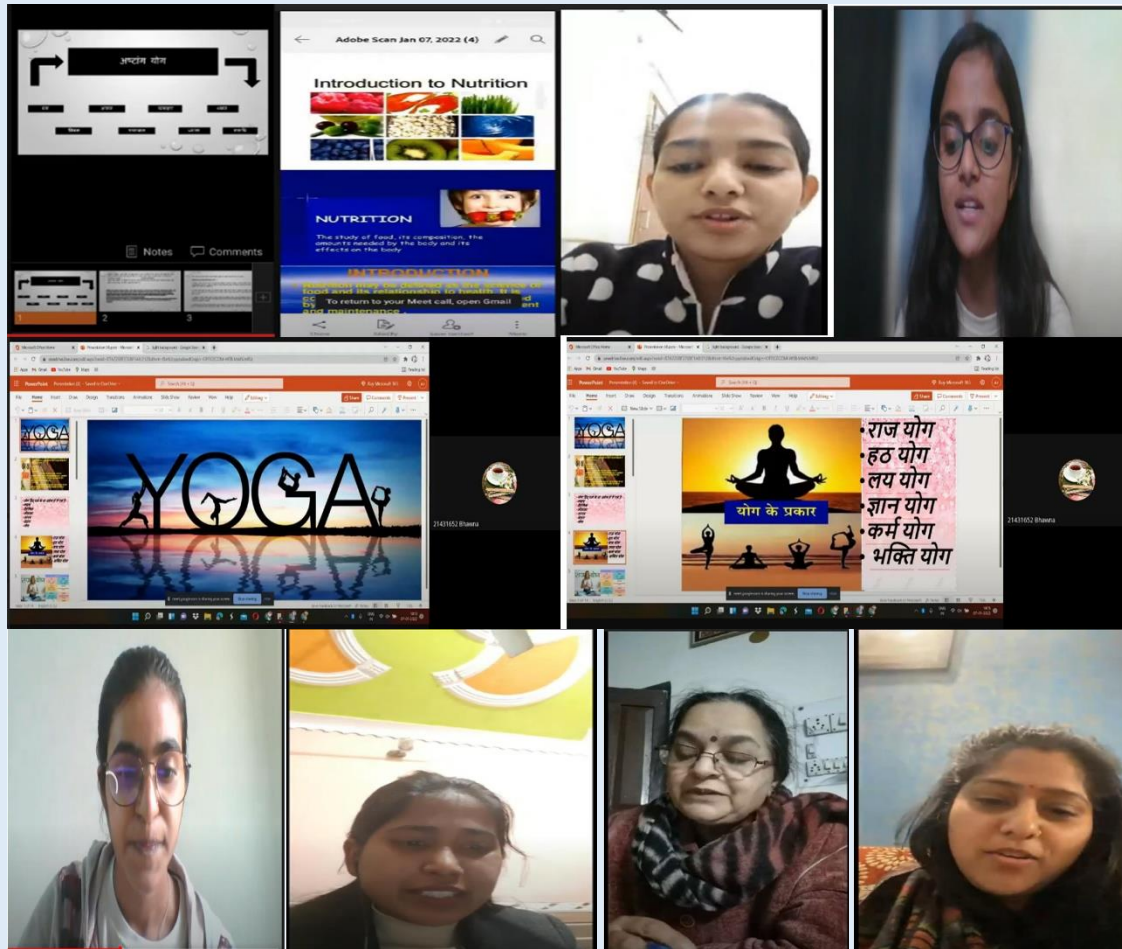
Practice and Presentation Session

The session was a practice and presentation session. A pre-declared condition for earning the certificate of participation of the SDP was to present and share their learning from the SDP by giving a presentation of about 5-7 minutes on any topic from any of the sessions of the SDP. The session saw an over-whelming response. The participants were ready with their presentations on varied subjects like – Yoga, Sudarshan Kriya, Suryanamaskara, etc. the participants gave their presentations very confidently. They also shared their feedback for the SDP in this session. The judges for the session were Dr. Shashi Sharma from the Department of Sanskrit and Mrs. Priyanka Verma from the NHE Department. The session continued for over three hours in duration.

Vote of thanks was presented by Dr. Kamna Vimal.







Date: 8th January 2022

Time: 3:30-4:30pm

Topic: Practicality and Significance of Yoga in Present Times

Resource Person: Dr. Omanand ji

Dr. Omanand ji, Mentor, Parmanad Yoga Institute, India was the Chief Speaker and Guest in this session of the SDP. Kamna Vimal presented the introduction of the resource person of the session, Dr. Omanand introduced participants with the renewed significance of Yoga in present pandemic times. He also showed some simple yogic practices to ensure complete respiration. He encouraged the participants to take a pledge of adopting Yoga as a daily practice and thus, enjoy a healthy life. The Q/A session also contributed to the knowledge sharing with the participants. Vote of thanks was presented by Dr. Kamna Vimal. ` ~~~~~`



Valedictory Session

Date: 8th January 2022

Time: 4:30-5:00pm

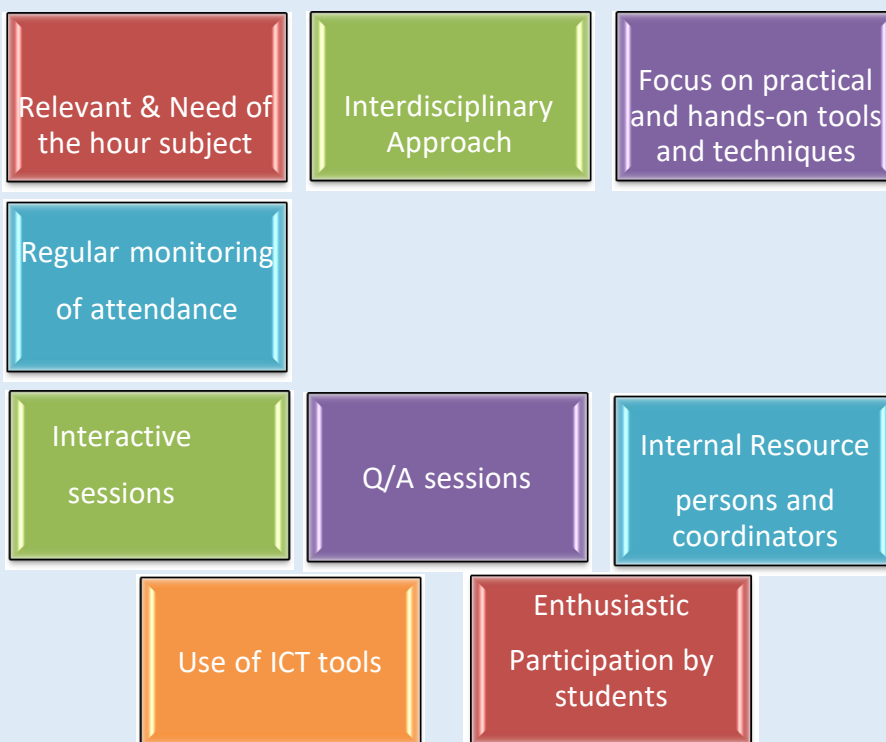
Topic: Practicality and Significance of Yoga in Present Times

The valedictory session of the SDP was presided over by Dr. Sarita Nanda, Vice-Principal, DRC. Also present at the occasion were Dr. Chayan Mehta, Coordinator (VVS) GGC, Jodhpur, Rajasthan, Dr. Meetu Khosla, Convener, SDP, DRC among others. The session started with mangalacharan by Pratibha and Priya and was anchored by Kashish. Dr. Nanda invited feedback from the participants. Many participants shared their thoughts and gave a positive feedback. Dr. Nanda congratulated the organisers on the successful completion of the SDP and on achieving the objectives behind organising the SDP to adopt Yoga as a lifestyle practice to ensure holistic well-being. Dr. Chayan Mehta shared her own as well as the GGC participants' feedback of the SDP. She expressed her

appreciation for the support and guidance extended towards her students by the coordinators. Dr. Meetu Khosla congratulated the organisers calling the programme a valuable one and suggested to have a re-run of the SDP in summers. She applauded the sheer determination of the participants also who participated in the SDP along with their classes. She also expressed her conviction that the learnings and the experiences of the SDP of Yoga and Nutrition will enable them to stay healthy and happy in life. Vote of thanks was presented by Dr. Pooja Jain



Highlights of the SDP



MATHS AND ECONOMICS DEPARTMENT

Names of the Collaborating Departments: Mathematics and Economics

Title of the Course: In House-Skill Development Program On R-Language

Sub-theme: Learning Abilities

Course Coordinators: Dr. Vikas Dhaka, Assistant Professor, Department of Mathematics,
Mr. Ashok Kumar, Assistant Professor, Department of Economics

Course Co- Coordinators: Dr. Jyoti Sharma, Assistant Professor, Department of Mathematics,

Duration with dates:

Sr. no	Date	Time	Module/topic title	Name of the Speaker	Affiliation of the Speaker
1.	21 December, 2021	9:30- 2:00	Introduction to Statistical Software R, R-Studio and constructing data objects in R	Dr. Poonam Lakhotia Dr. Jyoti Sharma	Assistant Professor, Department of Mathematics DRC
2.	22 December, 2021	9:30- 2:00	Working with data objects, Descriptive Statistics and Tabulation	Dr. Neha Bhatia Ms. Rekha Meena	Assistant Professor, Department of Mathematics DRC
3.	23 December, 2021	9:30- 2:00	Graphical Analysis, Distribution of data and Basic Stock Market analysis using correlation and Linear regression.	Dr. Vikas Dhaka Dr. Monu Kumar	Assistant Professor, Department of Mathematics DRC
4.	24 December, 2021	9:30- 2:00	Data Manipulation and Visualization (using dplyr and ggplotz packages)	Dr. G. S. Tuteja	Professor, Department of Mathematics Zakir Hussain College,

5.	27 December, 2021	9:30- 2:00	Descriptive Statistics and applications of R in Economics.	Mr. Ashok Kumar, Mr. Nitish Kashyap	Assistant Professor, Department of Economics DRC
6.	28 December, 2021	9:30- 12:30	Hypothesis Testing and Anova applications using R	Dr. Satish Verma	Associate Professor Department of Mathematics SGTB Khalsa College,

Details of the course

1) Description of the course: R is a computer language used for statistical computations, data analysis and graphical representation of data. It is an open-source programming language, freely available and can be operated easily. In today's time each and every sector be it finance or banking or E-Commerce or Health care, all are using R for better and effective functioning. Even Social Media platforms like Facebook, Twitter etc. use R to influence their target audience and to predict colleague interaction. By looking at the present-day requirements, the course was designed so that students will get the opportunity to enhance their skills. Every day we had practical demonstration by the resource persons followed by a hands-on session for students. The main focus was on the practical applications and hands on.

2) Objectives:

The main objective of this program is to create a better understanding of R language to students. It will further help them in their higher studies, and professional fields. They will be more comfortable and friendly with data and can work in a more scientific way meeting the present world demands

3) Topics covered:

- A. Introduction to Statistical Software R, R-Studio and constructing data objects in R
- B. Working with data objects, Descriptive Statistics and Tabulation
- C. Graphical Analysis, Distribution of data and Basic Stock Market analysis
- D. Data Manipulation and Visualization (using dplyr and ggplotz packages)

E. E. Descriptive Statistics and applications of R in Economics.

F. F. Hypothesis Testing and ANOVA applications using R.

Speakers in the course:

Sr. no.	Name	Designation	Department/Affiliation
1	Dr. G. S. Tuteja	Professor	Department of Mathematics, Zakir Hussain College
2	Dr. Satish Verma	Associate Professor	Department of Mathematics, SGTB Khalsa College
3	Dr. Poonam Lakhotia	Assistant Professor	Department of Mathematics, DRC
4	Dr. Vikas Dhaka	Assistant Professor	Department of Mathematics, DRC
5	Dr. Neha Bhatia	Assistant Professor	Department of Mathematics, DRC
6	Dr. Monu Kumar	Assistant Professor	Department of Mathematics, DRC
7	Dr. Jyoti Sharma	Assistant Professor	Department of Mathematics, DRC
8	Ms. Rekha Meena	Assistant Professor	Department of Mathematics, DRC
9	Mr. Nitish Kashyap	Assistant Professor	Department of Economics, DRC
10	Mr. Ashok Kumar	Assistant Professor	Department of Economics, DRC

Number and Profile of Participants:

No. of Students	Department	Year
8	Psychology	Third year
7	Mathematics	Third year
7	Economics	Third year
4	Biochemistry	Third year

Methods of Assessment of Participants: (Test/Assignment/Project/Quiz/Presentation etc.) (Kindly provide a copy of the pre-imposed measures/instruments/scales/questionnaires used for assessment of the learning outcomes):

1. Assessment in the form of MCQ and the Worksheet

Attached a pdf file named **Assessment-SDP_ON_R**

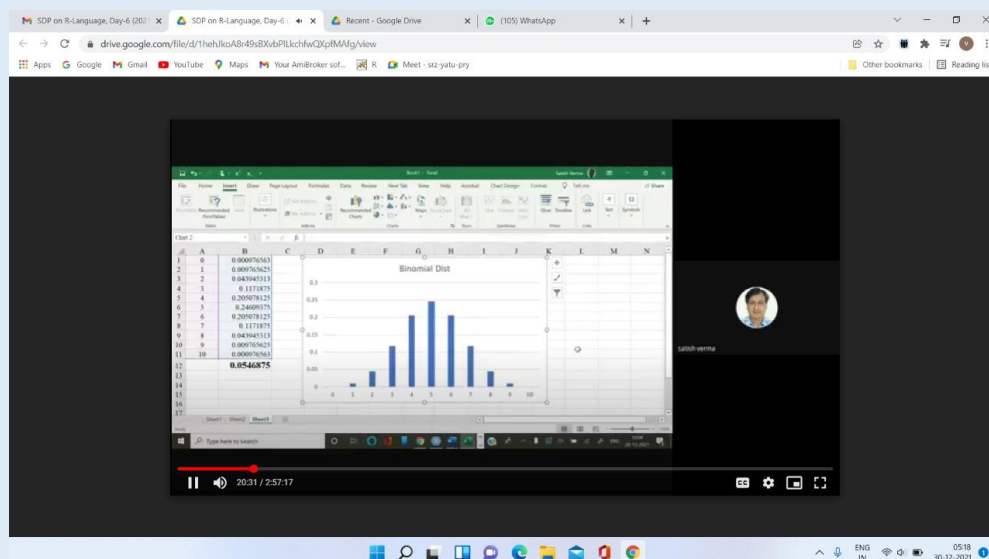
Detailed Learning Outcomes of the Course:

1. Students will be comfortable with basic data analysis and can make estimates and forecasts based on data available.
2. They can plot their data and visualize it in a more comfortable way.
3. They can do the extraction and mining of big data and can manipulate them.
4. They are comfortable with hypothesis testing, fitting of curve of data and future prediction based on the forehand data.
5. They also got a glimpse of Analysis of variance (ANOVA) applications using R.

Feedback from Participants Regarding the Program:

Attached a pdf file named **FEEDBACK_E-SDP_ON_R**

A Few Photographs (student activity-oriented photographs only/activity photos):



Invitation as Guest Speaker for ... | Outlook Ram College - Calendar - X | Meet - SDP on R-Language - X | (104) WhatsApp

meet.google.com/mzb-ckoc-nzm?authuser=1

REC satish verma is presenting

Microsoft Word: ANOVA: means Test in R - Word

Multivariate analysis of variance (**MANOVA**) is simply an **ANOVA** (Analysis of variance) with **several dependent variables**. It is a continuation of the ANOVA. In an ANOVA, we test for statistical differences on one continuous dependent variable by an independent grouping variable. The MANOVA continues this analysis by taking multiple continuous dependent variables and bundles them collectively into a weighted linear composite variable. The MANOVA compares whether or not the newly created combination varies by the different levels, or groups, of the independent variable. One can perform this MANOVA test in very easily. For example, let's conduct an experiment where we give two treatments to two groups of rats, and we are taken the weight and height of rats. In that case, the weight and height of rats are two dependent variables, and the hypothesis is that both collectively are affected by the difference in treatment. A multivariate analysis of variance could be used to test this hypothesis.

Interpretation of MANOVA
If the global multivariate test is important then assume that the corresponding effect is important. In this case, the subsequent issue is to decide if the treatment

11:24 AM | SDP on R-Language, Day-6

Participants: satish verma, Dr. Jyoti Sharma, Dr. Sarita Nanda, 19014510032 KAN..., Seema Khurana, 19014528028 PRAT..., 32 others, You

SDP on R-Language, Day2 (2021-12-21 at 20:06 GMT-8)

RStudio

```

33 data1<-6
34 #Manipulating Matrix and Data Frames
35
36 mat1=matrix(1:50,byrow=T,nrow=5)
37
38 mat1[c(1,3,5),]
39

```

```

> mat1=matrix(1:50,byrow=T,nrow=5)
> my.data=as.data.frame(mat1)
> my.data
  v1 v2 v3 v4 v5 v6 v7 v8 v9 v10
1  1  2  3  4  5  6  7  8  9  10
2 11 12 13 14 15 16 17 18 19  20
3 21 22 23 24 25 26 27 28 29  30
4 31 32 33 34 35 36 37 38 39  40
5 41 42 43 44 45 46 47 48 49  50
> row.names(my.data)=c("a","b","c","d","e")
> row.names(my.data)=c("a","b","c","d","e")-my.data1
Error: object 'my.data1' not found
>

```

Environment: Global Environment

Name	Type	Size	Value
U/d...			
da...n...		1	9
fr...d...		3	50
ma...m...			int...
my...d...			5 o...

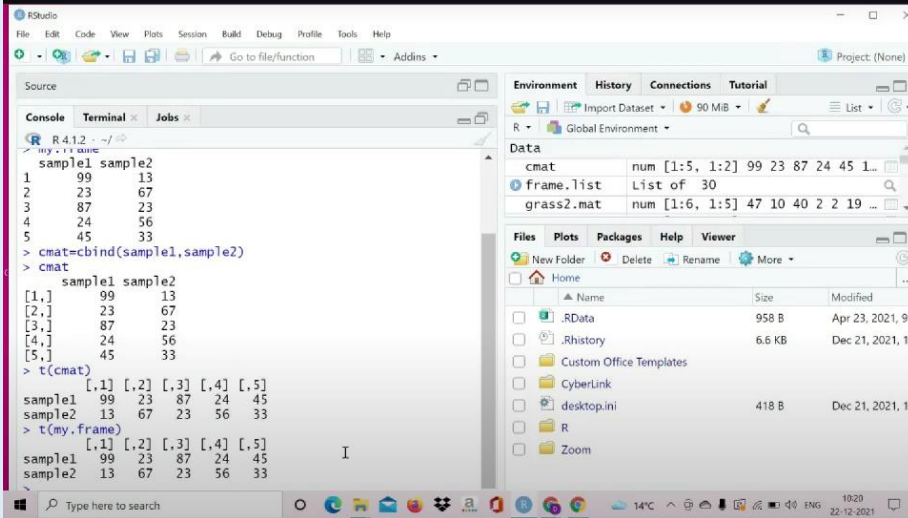
Bootstrap Functions (Originally by Angelo Cauty for S)

Documentation for package 'boot' version 1.3-26

Ms.Rekha Meena

2:50:03 / 4:10:00

SDP on R-Language, Day2 (2021-12-21 at 20:06 GMT-8)

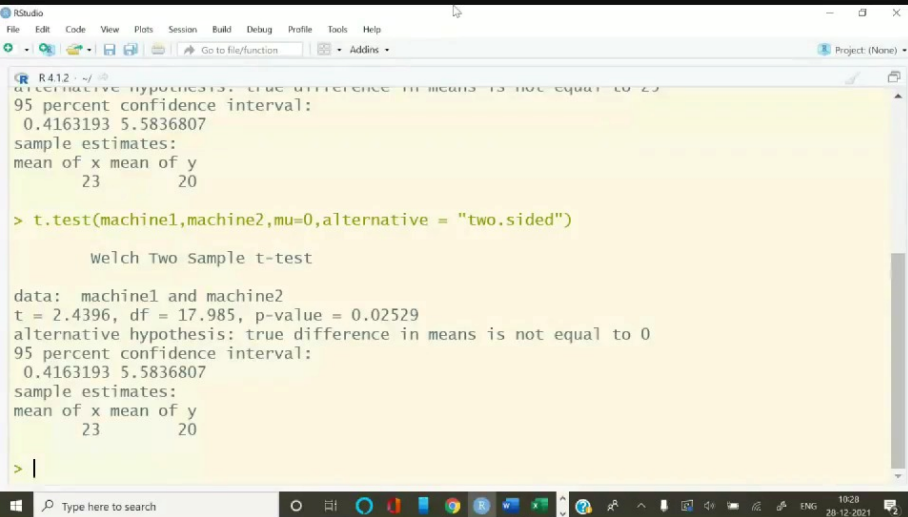


```
R 4.1.2 ~/> my.frame
  sample1 sample2
1      99      13
2      23      67
3      87      23
4       24      56
5       45       33
> cmat=cbind(sample1,sample2)
> cmat
  sample1 sample2
[1,]    99     13
[2,]    23     67
[3,]    87     23
[4,]    24     56
[5,]    45     33
> t(cmat)
     [,1] [,2] [,3] [,4] [,5]
sample1 99  23  87  24  45
sample2 13  67  23  56  33
> t(my.frame)
     [,1] [,2] [,3] [,4] [,5]
sample1 99  23  87  24  45
sample2 13  67  23  56  33
```



Dr.Neha Bhatia

44:08 / 4:10:00



```
R 4.1.2 ~/> t.test(machine1,machine2,mu=0,alternative = "two.sided")

Welch Two Sample t-test

data: machine1 and machine2
t = 2.4396, df = 17.985, p-value = 0.02529
alternative hypothesis: true difference in means is not equal to 0
95 percent confidence interval:
 0.4163193 5.5836807
sample estimates:
mean of x mean of y
      23      20
```



satish verma

Inbox (514) - vikasdhaka@dr.du... My Drive - Google Drive (105) WhatsApp

drive.google.com/drive/u/1/my-drive

SDP on R-Language, Day-4 (2021-12-23 at 20:06 GMT-8)

```
1. install.packages("dplyr")
2. library(dplyr)
3. getwd()
4. getwd()
5. help(mtcars)
6. view(mtcars)
7. names(mtcars)
8. str(mtcars)
9. dim(mtcars)
10. summary(mtcars)
11. view(filter(mtcars,cyl==6))
12. count(filter(mtcars,cyl==6))
13. count(filter(mtcars,cyl==6))
```

23:26 / 40:20

APFME: The Mathematical Association Election 2021-22

05:22 30-12-2021

Inbox (514) - vikasdhaka@dr.du... Recent - Google Drive (105) WhatsApp

drive.google.com/drive/u/1/recent

```
1. #dplyr
2. #filter
3. #arrange
4. #.
```

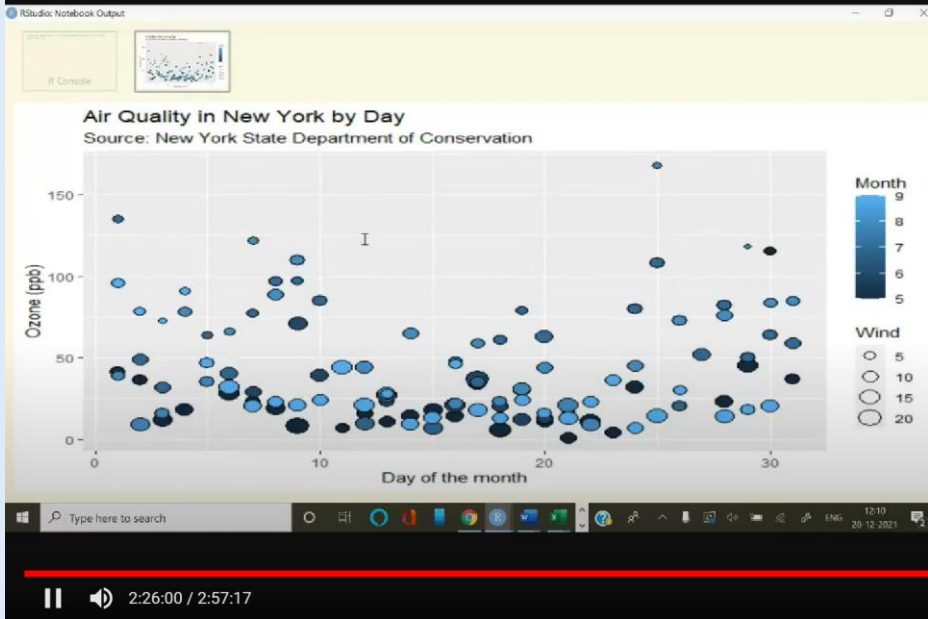
Environment is empty

Type 'demo()' for some demos, 'help()' for on-line help, or 'help.start()' for an HTML browser interface to help. Type 'q()' to quit R.

[workspace loaded from ~/.Rdata]

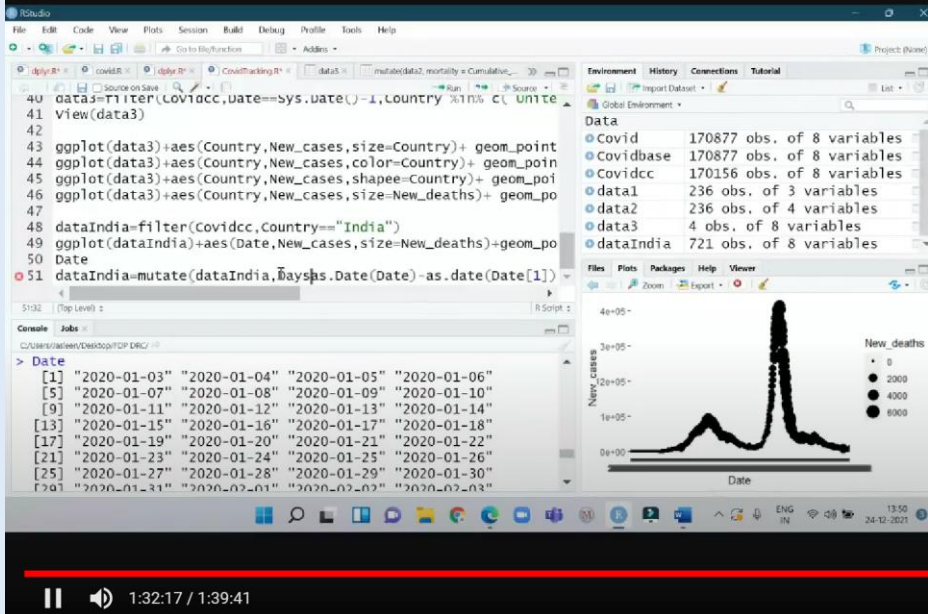
05:21 30-12-2021

SDP on R-Language, Day-6 (2021-12-27 at 20:14 GMT-8)



Satish Verma

SDP on R-Language, Day-4 (2021-12-23 at 22:47 GMT-8)



Gurpreet Singh Tuteja

SDP on R-Language, Day-3 (2021-12-22 at 22:49 GMT-8)

```

17 pairs(~count~M03~speed)
18 plot(Nfile, type="n")
19 month=c("Jan", "Feb", "March", "apri")
20 pie(data, lab)
21 pc=c("gray40", "gray50", "grs1 = mo
22 pie(data, labels=month, col=pc, init.
23 barplot(bird)
24 bird
25 dotchart(bird[,3])
26 barplot(data1, beside = TRUE)
27 data1
28 data2=rnorm(50, mean=5, sd=1)
29 data20
30 plot(data20)
31 rpois(50, lambda = 10)
32 plot(density(data20))
33 barplot(data1, xlab = "Month", col=
34 barplot(bird, beside = TRUE)
35

```

Console

```

> barplot(data1, xlab = "Month", ylab="Ra
> barplot(data1, xlab = "Month", col="rgb(
nfall", ylim=c(0,10))
Error: unexpected symbol in "barplot(da
> barplot(data1, xlab = "Month", col="rgb(
all", ylim=c(0,10))
Error: unexpected symbol in "barplot(da
> barplot(data1, xlab = "Month", col="rgb(
fall", ylim=c(0,10))
Error in rect(y1, x1, y2, x2, ...) :
invalid color name "rgb(0.2,0.4,0.6)"
> month=c("Jan", "Feb", "March", "april", "
> barplot(bird)
> barplot(data1, beside = TRUE)
> barplot(bird, beside = TRUE)

```

1:18:12 / 1:27:40

Thursday 12/23/2021

1:18:14

Dr. Monu Kumar

1:18:14

SDP2 - RStudio

```

13 cor.test(x1, x2, method="spearman")
14 cor.test(x1, x2, method="spearman")
15 #cor.test(x1, x2, method="spearman")
16 #cor.test(x1, x2, method="spearman")
17 #cor.test(x1, x2, method="spearman")
18 #cor.test(x1, x2, method="spearman")
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32 #cor.test(x1, x2, method="spearman")
33 #cor.test(x1, x2, method="spearman")
34 #cor.test(x1, x2, method="spearman")
35 #cor.test(x1, x2, method="spearman")

```

Call: cor.test(x1, x2, method="spearman")

```

data: x1, x2
S = 1.0000000, rho = 0.9999999, p-value = 0.0000000e+00
sample estimates: rho
0.9999999

```

Call: lm(formula = sales ~ customers)

```

lm data=customers
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

```

Dr. Vikas Dhaka

Course Coordinators
Dr. Vikas Dhaka
Mr. Ashok Kumar

Course Co-Coordinator
Dr. Jyoti Sharma

ECO CLUB DHARA

Names of the Collaborating Departments: Dhara Eco-club

Title of the Course: Think Smart, Think Green!

Sub-theme:

Course Coordinator: Dr. Anju Jain (Convenor)

Duration with dates: 9th-14th Oct. 2021 (10:00 AM - 2:00 PM)

Inauguration: 10:00-10:30 AM

Sr. no	Date	Time	Module/topic title	Name of the Speaker	Affiliation of the Speaker
1	9 th Oct	10am-12noon	“Celebrating Biodiversity!”	Dr. Anju Jain	Daulat Ram College
2	9 th Oct	12noon-2pm	“Biodiversity Census- The need of the hour!”	Dr. Sushma Bhardwaj	Daulat Ram College
3	10 th Oct	10am-12noon	“Energy Efficiency ‘FUN’damentals”	Dr. Neetu Agarwal	Govt. Girls Degree College, Kurawali (Mainpuri) U.P.
4	10 th Oct	12noon-2pm	Sahitya paryavaranchintan me	Dr. Kusum Lata	Daulat Ram College
5	11 th Oct	10am-2pm	“Food production and consumption: impact on the environment”	Dr. Avneet Kaur	Daulat Ram College
6	12 th Oct	10am-12noon	“Ecofeminism and ethical living in the 21st century”	Ms. Trisha Mitra	Daulat Ram College
7	12th Oct	12noon-2pm	“Current scenario of water resources in Delhi NCR and sustainable solutions for future ”	Dr. Arif Ahamad	Daulat Ram College

8	13 th Oct	10am-12noon	“Renewable Solar Energy in India for Sustainable Development”	Dr. Shefali Jain	Daulat Ram College
9	13 th Oct	12noon-2pm	“Carbon credits and carbon footprint calculation”	Dr. Leena Vig	Daulat Ram College
10	14 th Oct	10am-12noon	“Plant Conservation and setting up Micro-ecosystem”	Dr. Aradhana Yadav	Daulat Ram College
11	14 th Oct	12noon– 1pm	Feedback session		
12.	14 th Oct	1pm onwards	Valedictory Session (“Ecotourism and its role in biodiversity conservation”)	Mr. Vaibhav	Delhi Zoo

Details of the course:

Description of the course:

Ours is an age where in the face of climate catastrophe people from diverse communities from across the world are uniting to help the earth heal. Never before has the human race in the age of the anthropocene has had such a tremendous nightmare facing the world. DHARA, the Eco Club at Daulat Ram College, University of Delhi, wished to help young students take positive steps towards the effort to conserve resources and raise awareness about the crises haunting us through a skill development programme.

Participants were introduced to the concept of Celebrating Biodiversity! and sessions were held on enhancing their awareness about flora and fauna, solar energy, clean energy and energy efficiency, plant conservation and creation of micro-ecosystems, eco-feminism, calculating carbon footprints, water conservation and needs in Delhi, ecological thought in Hindi literature, and creating environment friendly household products, amongst others.

1) Objectives:

- A. Students were to be equipped with knowledge about the biodiversity of flora and fauna around them.
- B. They were to be taught about carbon credits and about carbon footprint calculators.
- C. They were to be equipped with a skill set required for zero waste living by making certain cleaning and beauty products using food or food waste in hands-on training sessions.

2) Topics covered:

- A. "Celebrating Biodiversity", lecture was started with the idea of what is biodiversity and about the three types of biodiversity and their distribution, with the special mention of biodiversity hotspots and their location around the world. This was followed by the Biodiversity in India, with an elaborate look over the various states and the Endemism of India's Biodiversity. Further added the benefits, threats and the responsibilities of students, as children of the mother earth towards the enrichment of the biodiversity of our place. There was special mention of the living bridges, which especially fascinated the student.
- B. "Biodiversity census: Need of the hour! This session focused on the various methods used to measure the diversity of animals and plants. Students were made aware about the benefits and the best fit of the different census methods in different conditions. The lecture also included hands-on training on measuring the biodiversity index to understand how rich an ecosystem is. The assessment of the understanding among the students was done by quiz and assignment based on the lecture.
- C. "Energy efficiency simply means using less energy to perform the same task ie. eliminating energy waste." In the module the participants will explore the enormous opportunities for efficiency improvements in some important sectors of the economy viz. Buildings, transportation, industries etc.
- D. Students were introduced to the concept-In literature, an attempt was made to explain through environmental considerations what water, rivers, wildlife, trees, etc think of human abuse towards themselves. Why is conservation of environment necessary? How does literature sensitize us so that we can seriously discuss environmental protection?
- E. The session provided an insight on how food production and consumption affect the environment. Also, various ways to use food waste were discussed. The

participants were told about good food practices for the environment. Hands-on training in making certain cleaning and beauty products using food or food waste was given to the participants.

- F. Students were taught about the current status of available water resources in Delhi NCR including surface water and ground water both. Different kind of pollutants and their health impacts were discussed. Various types of water resource management strategies were also discussed i.e. rainwater harvesting and household waste water (gray water and black water) management.
- G. Participants were taught how to investigate home electricity use and create connections between electrical usage, electrical generation and carbon dioxide emissions. Participants explored the enormous opportunities for efficiency improvements in some important sectors of the economy viz. Buildings, transportation, industries etc
- H. Students were introduced to the concept- ecofeminism- and were encouraged to look at the way patriarchal structures and strategies impact women and nature. They were introduced to key Indian ecofeminists and their work as well as writings. Participants were asked to recognize their own presence in an ecological framework and study their relationship with the environment around them.
- I. This session introduced participants to the “Sustainable Solar Energy”. They learned about various types of renewable and non-renewable energy resources. The status of solar energy in the World and India was explored. They also learned about Photovoltaic technology and various materials used for the formation of solar cells. Various types of solar plants and their installation were also discussed. They were also motivated and talked about various Government schemes for the installation of solar plants.
- J. Students were sensitized towards leading a healthy and sustainable life and about the importance of plants. They were imparted knowledge about traditional medicinal herbs and their use to cure many diseases. Leading a sustainable life should be a prerequisite as our future generations need to survive well. Combating the urban air pollution in different ways and use of indoor plants to improve the urban air quality. Use of breathing walls in work spaces, space and food and other aspects of plant utilization. Malnutrition and Mushroom cultivation to provide food in the areas where people are undernourished and mushroom cultivation owing to some economical benefits for poor people.

Speakers in the course:

Sr. no.	Name	Designation	Department/Affiliation
1	Dr. Anju Jain	Sr.Assistant Professor	Department of Zoology, Daulat Ram College
2	Dr. Aradhana Yadav	Assistant Professor	Department of Botany, Daulat Ram College
3	Dr. Avneet Kaur	Assistant Professor	Department of Chemistry, Daulat Ram College
4	Dr. Leena Vig	Assistant Professor	Department of Biochemistry, Daulat Ram College
5	Ms. Trisha Mitra	Assistant Professor	Department of English, Daulat Ram College
6	Dr. Kusum Lata	Assistant Professor	Department of Hindi, Daulat Ram College
7	Dr. Arif Ahamad	Assistant Professor	Department of --s, Daulat Ram College
8	Dr. Shefali Jain	Assistant Professor	Department of Physics, Daulat Ram College
9	Dr. Sushma Bhardwaj	Assistant Professor	Department of Zoology, Daulat Ram College
10	Dr Neetu Agrawal	Assistant Professor (Guest speaker)	Department of Physics, Govt. Girls Degree College, Kurawali (Mainpuri) U.P.

Number and Profile of Participants:

No. of Students	Institution	University
60	Daulat Ram College	University of Delhi

A large proportion of students belonged to the following departments, from across the two institutions:

Zoology

Physics

Life Sciences

Hindi

Political Science

Botany

English

History

Education

**Methods of Assessment of Participants:
(Test/Assignment/Project/Quiz/Presentation etc.)**

1. Posters
2. Video making on the concept of Celebrating Biodiversity
3. Quiz
4. Short note
5. Slogan Writing
6. Video making while making certain beauty or cleaning products using food waste.
7. Multiple choice question and short note

Detailed Learning Outcomes of the Course:

1. India is one of the twelve mega biodiversity countries across the world. In present times, the biological wealth is threatened either due to negligence in conservation or over-exploitation of natural resources. Climate change poses another significant threat to biodiversity. Biotechnology offers new means of improving rather than threatening biodiversity and bio-resources. India is also rich in community-based processes and traditions which need urgent

documentation.. Steps and strategies for the conservation of biodiversity have to be evolved at the national and international levels for sustainable use of biological resources.

2. To understand the status of the biodiversity of an ecosystem, it is important that the students understand the significance of species richness and species diversity in a given ecosystem. After the completion of the module, students had an overview of the different methods used in the census of the different species, their advantages and the disadvantages. Students were made aware of the methods for calculating the species richness and species diversity. They also learnt to calculate the biodiversity index.

3. Participants should be able to investigate home electricity use and create connections between electrical usage, electrical generation and carbon dioxide emissions.

4. Literature teaches us what the trees we cut down, the flowers we break, the rivers we pollute, the wild animals that we are ending up, the birds we make homeless, what do they think of us? They all say something to us. Have we ever listened to their minds? Have we ever sought their interests, as humanity, above our own selfishness? The answer is no. That is why nature repeatedly warns us of cataclysm, floods, lightning, and landslides. Students learnt about the concept that the literature considers the condition and direction of these diverse forms of environment by drama, story, essay, and poem. We need to know those invisible, unresolved questions and find out their plight.

5. The participants learnt how our food choices affect the environment. What are the simple food choices that reduce our climate footprint? Also, the fact that we can turn food waste into wealth i.e. useful products was instilled in the minds of the participants.

6. Students learnt about the current status of water resources in Delhi NCR. They learnt about the importance of water in quality and quantity both terms. Different kind of diseases related to ingestion of contaminated water were explained. They also learnt about household waste water management and rainwater harvesting technique.

7. Students learnt about the concept- ecofeminism- and learnt how to better explore the structural flaws in the dominant systems in our society that perpetuates a hostile and exploitative attitude towards nature. They learnt to be more attentive towards sociological and economic aspects of the human world that allow for the exploitation of the natural world.

8. In the present session, participants learnt about the clean production of electricity at low cost using renewable energy resources (Solar). They learned about various solar modules and types of plants which they can install in their house. They also got to know about subsidies provided by the State and Central Government for the installations. They also calculated the payback time for any solar plant which they can install in their own houses for domestic purposes.

9. Building the green microcosm around is very important. It's important to have an ecological, spiritual bond with the plants as we ourselves are a part of this ecosystem. A small imbalance is also very harmful for our very existence. Maintaining a balance by planting trees, having a knowledge of medicinal herbs will be a boon for us. The indoor plants have the capability to remove the VOC's from indoors giving a breathable space. We can live harmoniously with plants as they benefit us in every way.

Feedback from Participants Regarding the Program:

1. Very knowledgeable sessions and useful. I observe biodiversity knowledge and uses of waste materials . How to change waste material to new material. Thank you so much for giving me more information. And again, THANK YOU.
SONIYA DEORA, GOVERNMENT GIRLS COLLEGE, MAGRA PUNJALA, JODHPUR. (RAJASTHAN)
2. This workshop was very informative and got to know about very new things about our biodiversity. Would like to have more sessions like this.
Bharti Yadav, Daulat Ram College
3. The whole session was very knowledgeable and interesting. The speakers were good and explained all things very clearly.
Deepali Yadav, Daulat Ram College
4. Thank you for this insightful session. Really had a great time listening to the teachers...
Sanjana Sah, Daulat Ram College
5. It was such a well organized workshop which was full of information and knowledge....
Sneha Chauhan, Daulat Ram College

A Few Photographs (student activity-oriented photographs only/activity photos):



आइए अपना परम कर्तव्य निभाएं

इसके संरक्षण में अपना योगदान सुनिश्चित कराएं

और इस धरती को फिर से सभी के रहने योग्य बनाएं

सभी मिलकर पर्यावरण को बचाएं

Activities done by participants

as assignments

Assignment day 3

Using food waste

Onion and garlic skin

Instead of throwing away the skin, reuse this kitchen waste to make delicious homemade soup stock, since the skin holds more nutritional value.

Onion skin can also be used for hairs.

☆ पर्यावरण चाभी है एक बेहतर ज़िंदगी की

☆ पर्यावरण एक खजाना है जिसे हमें किसी भी कीमत में बचना है

पर्यावरण का रखें ध्यान, इस से ही है हमारे प्राण



Activities

assg. a1

save biodiversity save yourself

ACKNOWLEDGEMENT

I would like to express immense gratitude for our Principal Professor Savita Roy, under whose esteemed guidance this program was possible. I would also like to thank our Vice Principal, Dr Sarita Nanda for supporting us and all the course coordinators of the various departments of the college, teacher -in-charges, resource persons who contributed to make this program a success. Thanks to Dr Renu Yadav for the certificates and Rubi Singh for coordinating with the departments. This report would not have been possible without sincere efforts by Ms. Richa Dawar and her editorial team who worked endless hours with sheer determination to compile all the reports of various departments together.

Prof. Meetu Khosla

Convenor

EDITORIAL TEAM

TEACHER COORDINATOR

Ms. Richa Dawar

STUDENTS TEAM

Gungun Kumari

Disha Bhujel

Riya

