

## Zoological Society - KOSHIKA

**Association-in-charge :** Dr. Jyoti Taneja

**Co-convener :** Dr. Sunita Kumari Yadav

**Office Bearers**

**President :** Anubha Mishra

**Vice President :** Shivani malik

**General Secretary :** Isha verma

**Treasurer :** Kashish

**Joint Secretary :** Hangshika

Name of event	Inter/ Intra College Event	Date of the Event	Speaker Name & Designation	No.of students participated	Name of the prize winners	Course of Prize Winners
"Insect art, Ecology, Sustainability talk- A Wetland View"	Intra College	02/02/2022	Mr. Mayanglambam Ojit Kumar Singh	75	NA	NA
Poster making competition on National Deworming Day	Intra College	03/10/2022	NA	Sapna, Orooj, Khushi	Sapna	B.Sc (H) Zoology
				Karma, Rinki, Monika	Orooj	B.Sc (H) Zoology
				Akansha	Khushi	B.Sc (H) Zoology
international webinar on unraveling the role of chromatin plasticity	Intra college	01/20/2023	Dr. Nitika Taneja	78		
Cancer Awareness Program	Intra college	07/27/2022	Dr. Pragya Singh	104		
Inaugural talk	Intra college	09/28/2022	Prof. Sadhana Sharma	120		
Winter workshop on academic writing	Inter college	12/18/2022 to 01/15/2023	Resource person Dept of zoology faculty, Dr. Priya Bhardwaj, Ms. Aashi, Ms. Khushi and Ms. Shramana	65		



# **PSYCHOLOGY**



**Report**

**Of**

**IN-HOUSE SKILL DEVELOPMENT PROGRAM**

**UNDER IQAC**

**Daulat Ram College**

**On**

**DEVELOPING PSYCHOMETRIC  
SKILLS**



## SCHEDULE OF THE SESSIONS, RESOURCE PERSONS AND TOPICS

DAY	SESSION & TIME	TOPIC	SPEAKER/ RESOURCE PERSON
11 July Monday	I (10am-1.30am)	Inaugural Function & overview of psychometry.	Prof. Raini Sahni
11 July	II (12pm-1.30pm)	Ethics in Psychological Testing	Dr Kshitija Wason
11 July	III (2.30pm-4pm)	Uses & Applications of Psychometry in educational setting & clinical setting	Dr Kshitija Wason
12 July Tuesday	I (9.30am -11am)	Characteristics of Psychological Test.	Dr Rakhi Singh
12 July	II (11.30am--1pm)	Standardization of Psychological Test.	Prof. Rajni Sahni.
12 July	III (2pm-4pm)	Meaning/ types/ measuring Reliability of Psychological Test.	Prof. Raini Sahni.
13 July Wednesday	I (9.30am-11pm)	Validity & item Analysis	Dr. Deepesh Rathore.
13 July	II (11.30am-1pm) III (2pm-4pm)	Measuring Validity	Dr. Deepesh Rathore.
14 July Thursday	I (9.30am-11am) II (11.30am-1pm) III (2pm-4pm)	Scoring of test problems	Dr. Deepesh Rathore
15 July Friday	I (9.30am-11am) II (11.30am-1pm)	Test Construction (group wise)	Dr. Deepesh Rathore
15 July	III (2pm-4pm)	Pilot Study	Dr. Deepesh Rathore
16 July Saturday	I (9.30am-11pm) II (11.30am-1pm) III (2pm-4pm)	Thematic Apperception Test Presentations of students Presentation of Learning.	Prof Meetu Khosla Dr. Deepesh Rathore, Dr. Kshitija Wason, Dr. Rakhi Singh.

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## SESSION I

# Psychometry: Overview, Ethics, Uses & Applications

*Prof Rajni Sahni and Dr Kshitija Wason*  
*Psychology Department, Daulat Ram College*

### Session Content:

The session focused to annotate on what psychometry is, a brief about its historical background, who are psychometricians & psychometrists. The aim was to make the students aware of the basic concepts of psychometry including topics like what is a construct, psychometric soundness and utility, operational definition, assessment and so on. With the help of various examples, illustrations and theory the concepts were made clear about how as a field psychometry is so integrated and holds so much value in lives. To understand the field in a greater depth later in the session ethics and applications of psychometry were discussed followed by a number of interactive and engaging activities. The module helped the students to perceive how the field, despite a number of ethical concerns including that of informed consent, confidentiality, debriefing, knowledge of results, ablism vs disablism, non-stigmatization, cultural adaptation, data privacy/infringement, frauds in assessment holds so much of importance as a psychometric test is a legally binding document, they could make a difference in the lives of the individuals/ group and hence should be administered with utmost appropriateness. Then finally an understanding of how psychometry is applicable in the real-world setting was discussed. Despite having a number of ethical concerns, it is still most widely used in various fields for various purposes like screening, recruitment, diagnosis including the Military, educational setting, organisational setting, clinical spheres, sports and so on for objectively evaluating one's abilities, skills, knowledge, aptitude, mental states, behaviours etc. And finally, students were themselves made to take a personality test to get a hands-on experience on what psychometric tests are like and then the evaluation of results were done collectively in a very creative and interactive manner. The session highlighted the need for psychometry as a sub field of psychology, it's meaning and importance at the same aimed to make the students understand and keep in mind the ethical issues and further it's uses in the real time as they are not just mere "IQ" or "Personality tests" there is so much more of an application to them in each and every area of life today.

### Student Feedback:

A brief introduction about the skill development program was given at the inaugural function followed by the question of how many of us are aware with the term "psychometry", not many of us were, following that a detailed overview of psychometry was delivered to us which was a great add on to our pre-existing knowledge of psychometry. Later on, Ethics in psychological testing were discussed which was a very interactive yet insightful part as we got to know it is a cumbersome and very difficult task to construct as well as administer a psychometric test because it is actually a matter of lives and not a lay man's job, it requires great set of skills and knowledge.

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Then with that we ourselves were made to take a self-report personality test which was a very interesting one. And with that we were made to understand the application of these psychological measurements at different spheres of lives. The evaluation of test score helped us gain practical knowledge and we were made to do it in such a fun and effortless manner. The atmosphere throughout was warm, optimistic and kind. Each and every bit of the session was loved by all of us. The activity also gave us the chance to interact with one another and develop rapport.

**Learning Outcome:**

1. Understanding the field of psychometry.
2. Being familiar with the various notions of psychological testing.
3. Knowing the ethical aspects involved in developing and administering a psychological test.
4. Developing knowledge of the application and uses of the psychometry test in the real time settings.



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## SESSION II

### **Psychological Testing: Characteristics (Standardisation and Reliability)**

*Dr Rakhi Singh and Prof Rajni Sahni  
Psychology Department, Daulat Ram College*

#### **Session Content:**

The main aim of this session was to explain the various characteristics of a psychological test. There are a number of tests available but are all of them good tests? The answer is a for sure no. A test is a good test when it is standardised, reliable, valid, objective and has well established set of norms. Only then it is said to be a good test. We were made familiar with all these characteristics and their relative and absolute importance in psychological testing. This session majorly focused upon the standardisation and reliability of the test and the rest were discussed in detail in the fourth coming sessions. With the help of presentations, examples, illustrations and input from all of us we were made to understand the concept of standardisation. Later in the session the meaning, importance and need of reliability along with its types and measurement was discussed. The aim was to make us understand the theoretical knowledge so that we can make use of that in the upcoming practical work of actual test construction. Inputs from the students were taken so as to brush up our existing knowledge and to understand the concept more efficiently.

#### **Student Feedback:**

The session helped us to explore the various associated and important concepts in psychological testing. What are its characteristics and the important value it holds. How absence of even any one of it can make the relevance of the whole test in question. How these measures of standardisation and reliability are established why it is important to establish them, what purpose they serve. It was a great theoretical session on the understanding of various concepts and its further application in test construction.

#### **Learning Outcome:**

1. Knowing and understanding the characteristics of a psychological test.
  2. Learning the concept of standardisation of psychological test, its importance, need and use.
  3. Learning the concept of reliability in psychological test, its meaning, types, measurement importance, need and use.
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## Session III

# Validity And Item Analysis, Measuring Validity

*Dr. Deepesh Rathore*  
*Psychology Department, Daulat Ram College*

## Session Content

The session focused to elucidate on what Validity is, how is it understood in simple terms and its definition. The aim was to make students of both psychology and non- psychology courses aware of the meaning of Validity, its importance in the context of a psychometric test and how can it be measured. The aim also involved introducing the students to Item Analysis and Correlation. Students were also informed how validity is an ever-evolving concept and ways in which it is characterized. Further delving into the concept, light was also shed on the different types of Validity as well as the relationship between reliability and validity. An important aspect was also highlighted which the students would definitely remember which stated how a reliable test is not always valid but a valid test is always reliable. Item analysis was also conducted along with the concepts of Correlation and types of correlation included in the session. Ways to derive correlation using simple soft wares like excel was also taught to students at the same time making the student understand various features and techniques in excel format. The concept of norms was also introduced to the students accompanied with the different kinds of norms. The session ended with students learning about the applications of testing in an organizational setting with various examples supporting each application. The session was enlightening and engaging for students with great detail of knowledge towards the important components of a test.

## Student Feedback

The session started with us being asked as to what validity is, hence we engaged in an interactive experience of explaining what validity meant both in terms of its exact definition and in layman terms. Relevant examples were also given to explain the types of validity and how to measure it. The session concluded with informing us about the steps that were involved in constructing a standardized test. The theoretical aspect of the concept of validity and measuring validity was wonderfully demonstrated along with its applications.

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## Learning Outcome

1. Thorough understanding of the concept of Validity.
2. Understanding the types of Validity.
3. How to conduct Item Analysis.
4. Thorough understanding of the concept and types of Norms.
5. Understanding the steps in test construction.

**Table 4.2 Hypothetical Multitrait-Multimethod Matrix**

	Traits		Self-Report			Peer Rating			Projective Test		
			A <sub>1</sub>	B <sub>1</sub>	C <sub>1</sub>	A <sub>2</sub>	B <sub>2</sub>	C <sub>2</sub>	A <sub>3</sub>	B <sub>3</sub>	C <sub>3</sub>
Self-Report	Social interest	A <sub>1</sub>	(88)								
	Creativity	B <sub>1</sub>	52	(89)							
	Dominance	C <sub>1</sub>	31	36	(91)						
Peer Rating	Social interest	A <sub>2</sub>	57	21	61	(85)					
	Creativity	B <sub>2</sub>	22	59	58	42	(94)				
	Dominance	C <sub>2</sub>	11	12	43	66	32	(86)			
Projective Test	Social interest	A <sub>3</sub>	56	22	41	54	65	60	(92)		
	Creativity	B <sub>3</sub>	23	58	13	59	57	58	60	(92)	
	Dominance	C <sub>3</sub>	11	11	41	59	57	58	60	60	(86)

NOTE: Letters A, B, and C refer to traits (social interest, creativity, dominance) and subscripts 1, 2, and 3 refer to methods of measurement (self-report, peer rating, projective test). The matrix consists of correlation coefficients.



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## Session IV

# Scoring Of Tests and Problems

*Dr. Deepesh Rathore*  
*Psychology Department, Daulat Ram College*

## Session Content

The session focused on teaching students as to how to score tests and the data gathered from it as well as problems faced during the same. It was a very interactive session where all the students engaged in learning various methods of data analysis and various functions used in the same on

excel.

The analysis was done on an already filled questionnaire that the students were told to fill before the program started.

## Student feedback

It was a very informative session. Got to learn new skills. The practical part especially using excel for data analysis was really fun and mentally stimulating. We really enjoyed the whole session; it was really insightful and a new experience.

## Learning Outcome

1. Learning how to score tests.
  2. Dealing and introduce possible problems that rise in a test.
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## Session V

### Test Construction and Pilot Study

*Dr. Deepesh Rathore*  
*Psychology Department, Daulat Ram College*

#### Session content:

The session started with the students being divided into two groups where the topic Empathy was chosen for construction of the test. The session was followed by students selecting five definitions of Empathy and using all to create one common definition of Empathy. In an interactive session, each student got the opportunity to construct questions for the questionnaire and learn the possible difficulties and nuances in constructing a question. 30 questions were constructed under different components or factors of Empathy that involved experience, understanding and managing. Later the questions were shuffled and included in a google form. Followed by the google form being

distributed

to all possible participants between the ages of 18-24. Around 200 responses were collected.

#### Student Feedback:

The session focused on teaching students the complexities of constructing a test and its various components. The session being very interactive as students participated actively in constructing the questions and choosing of a topic for the test too.

#### Learning Outcome:

1. How to construct a test.
  2. Possible problems faced during the construction of a test.
  3. How to construct a good question.
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## Session VI

# Thematic Apperception Test (TAT) & Presentations of students

*Prof Meetu Khosla, Dr. Deepesh Rathore, Dr. Kshitija Wason and Dr. Rakhi Singh.  
Psychology Department, Daulat Ram College*

### Session Content:

The session started with distribution of the thematic apperception test to all the students. The students were given the instructions pre-hand by the professor and then the test was administered as cues were presented one after the another. After the completion of the test the test questioners were collected and shuffled and were randomly re-distributed for scoring. The scoring procedure was explained one by one as TAT being a projective technique test has a very cumbersome and labour-intensive scoring procedure. The scoring procedure was well explained to all the students. And after completing the scoring all the tests were interpreted by the professor anonymously keeping in mind the confidentiality of the participants. With that we came to the end of the skill development program and now it was the students time to present the presentations of their learnings of this program of developing psychometric skills. The students were divided into two groups and very beautifully and gracefully presented their learnings of the six-day program. It was an absolutely wonderful experience conducting the session with highly interested and enthusiastic participants. Each one of the students took the valuable learnings from the sessions and made it a great success.

### Students Feedback:

This session focused on the importance of projective tests which are indirect test technique and are for participants who at times give the responses that are socially desirable or do not reveal their true self or are themselves consciously not aware of certain aspects. We have always been curious about how such tests that are so subjective in nature can be evaluated objectively in a standardised manner. This session was very informative and new to our learning experience. And the best part was the interpretation of the stories we wrote. It was done so beautifully and our enthusiasm was on the peak. We got to learn so much. These six days were a great learning experience. Along with the theory we learned the practical aspects of the subject and in the end, we also got a chance to showcase the set of skills we learnt. It was a very warm, nurturing and growing platform and we took the best of it with us.

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### Learning Outcomes of the session:

1. A hands-on experience of using a projective technique.
2. A recap and evaluation of the skills learnt throughout the course of 6 days .





## BRIEF REPORT OF WORKSHOP ON DROSOPHILA AS MODEL ORGANISM

Two-day workshop was organized by Drosophila Resource Centre, Dept. of Biochemistry on 22<sup>nd</sup> and 29<sup>th</sup> September 2022. Third year students (24) and two faculties from Biochemistry Department of Shaheed Rajguru College of Applied Sciences for Women participated in the workshop.

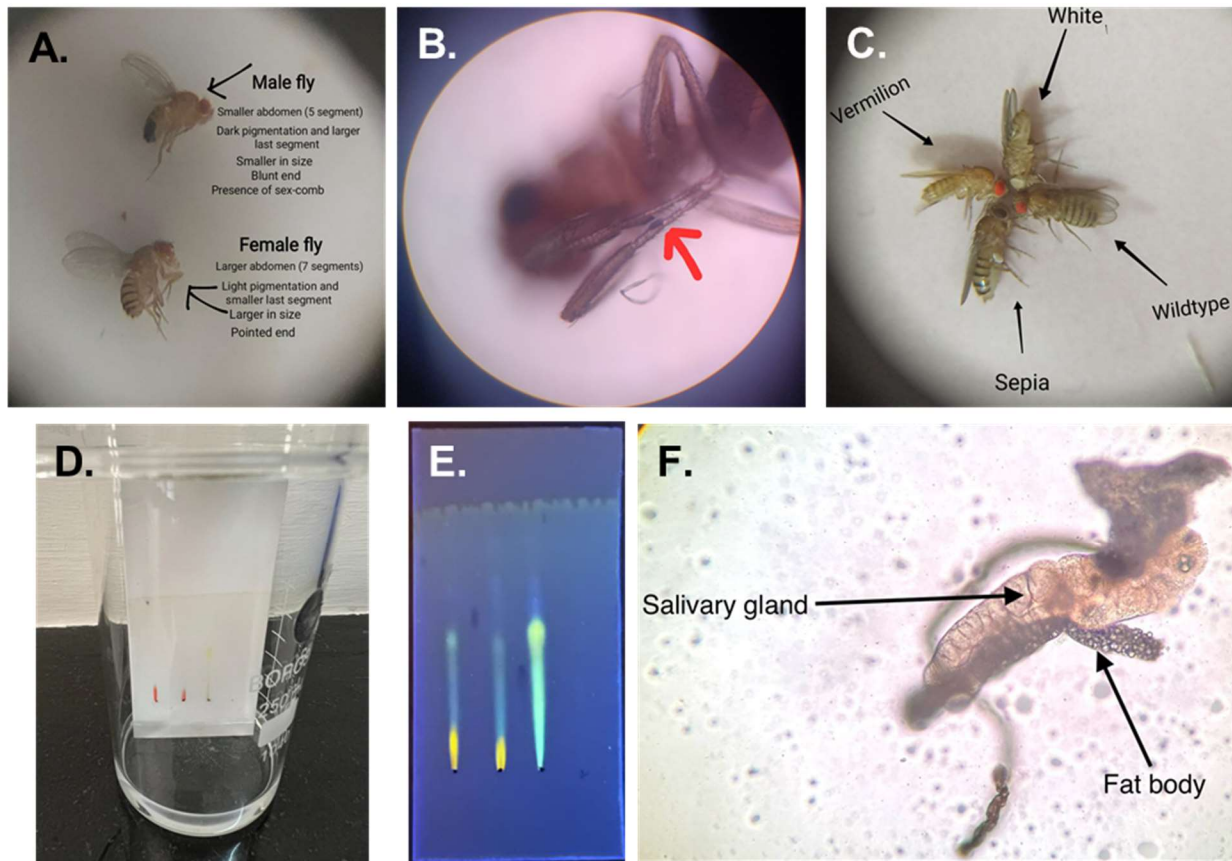
The workshop covered the following practicals:

1. Introduction to various model organisms and why is drosophila used as model organism
2. Maintenance and culturing of drosophila
3. Male female differentiation and collection of virgin flies
4. Study of lifecycle stages of drosophila
5. To study mutant phenotypes of *Drosophila melanogaster*
6. To separate eye pigments (pterins) by thin layer chromatography
7. To prepare stained squashes of salivary glands showing well spread polytene chromosomes

Few experiments were shown as demonstration in small groups (food preparation etc.), few others were observation-based, while hands-on-training was given for maintenance and culturing of drosophila, separation of eye pigments by TLC and preparation of stained squashes of salivary glands showing well spread polytene chromosomes.



Glimpses of few of their observations and results:



- A. *Differentiation of male and female fly*
- B. *Sex comb in male drosophila*
- C. *Eye color mutants of drosophila*
- D and E. *Thin layer chromatography of pterins*
- F. *Salivary glands of drosophila seen upon dissection of third instar larvae*

Students got immensely benefitted from the workshop. 87% students graded it as 1 (perfect) while remaining wanted a longer duration of the training so gave grade 2. They requested for more such educational workshops in future.

The two faculties trained at the centre also sought guidance for establishing drosophila lab in their college. They were provided with wild type, mutant flies and food vials to begin.

Convenor: Dr. Neeru Dhamija

Co-Convenor: Dr. Anita Goel

Mentor and Teacher-in-charge: Dr. Padmshree Mudgal



3. Seeking Help (resources for seeking healthcare, efforts for maintaining mental health)

## DROSOPHILA RESOURCE CENTRE

### Drosophila Resource Centre, Biochemistry Department

**Associated Faculty:** Dr. Sunita Joshi (Retired Associate Professor)  
Dr. Neeru Dhamija  
Dr. Anita Goel

Drosophila Resource Centre was set up in Department of Biochemistry in 2012. The centre was funded by DBT Star College Project. It aims to teach the basic principles of genetics using *Drosophila* as model system. Almost 300 students have been trained since its inception. Students of different life science streams such as Botany, Biochemistry, Life Sciences and Zoology from DU and Punjab University have been trained at the centre. A lab manual on 'Rediscovering Genetics' has been published in 2016 that covers the range of experiments performed by the students at the centre. The students have been immensely benefited by this training which is reflected in their selection and pursual of higher education in genetics from prestigious places. The centre also provides stocks and support to many colleges of Delhi University, AIIMS and Sanatan Dharm (P.G.) college, Muzaffarnagar. Students get hands-on training on preparation of fly food, culturing and maintenance of flies, male female differentiation, identification of mutants, performing crosses to analyse principles of genetics and many more. It also conducts workshops for training students and teachers of other colleges of DU since its inception. In September 2022, workshop was organized for our sister department, Department of Biochemistry, Shaheed Rajguru College of Applied Sciences for Women where 2 faculties and 24 students have been trained in drosophila genetics and were helped in establishing the facility in their college. Students showcased the activities of Drosophila Resource Centre at Gyanotsav-2079 held at IARI, Pusa Campus from 17<sup>th</sup> to 19<sup>th</sup> November 2022.

Dr. Neeru Dhamija and Dr. Anita Goel attended Hands-on-training on "Animal models for teaching and research" held at BHU from October 7<sup>th</sup> to 9<sup>th</sup>, 2022 for updating themselves with the current research in the field.



## Drosophila Resource Centre, Zoology Department

**Associated Faculty:** Dr. Madhu  
Dr. Sonika Sharma

The Drosophila Resource Centre in the Department of Zoology was set up and maintained by Dr. Chitra Bhasin. Since its inception in 2013 the centre has been providing hands-on training to undergraduate students to introduce the students to this interesting insect- Drosophila. It is a favourite model organism and is used extensively to study genetics and developmental biology. Students also learn the nuances of setting up and maintaining stocks in the lab and food preparation. This year students have started hands-on training of basic genomics and proteomics using Drosophila. The basic aim of this centre is to provide laboratory exposure to students interested in pursuing research.

The center also provides internships to graduate students who intend to have exposure to experimental laboratory. The next student training workshop is scheduled for June, 2023.





## Department: English - LITERATI

**Association-In-Charge :** Dr. Deepshikha Mahanta Bortamuly

**Co-convener :** Ms. Trisha Mitra

**Office Bearers**

**President :** Bidisha Jalan

**Vice President :** Sanskriti Joshi

**Cultural Secretary :** Akanksha Kiran

**Joint Secretaries :** Anshika Sharma and Samreedhi Shree

Name of the Event	Inter/Intra College Event	Date of the event	Speaker Name & Designation	No. of Students participated	Name of Prize winners	Course of Prize Winners	Prize Won
Freshers '22: Fantasy	Intra	01/15/2022	Organised by Literati: The English Literary Association of Daulat Ram College	87	Janvi, Anshika Sharma, Samreedhi Shree,	B.A. Hons English	Miss Freshers, Miss Talented, Miss Popular respectively
Annual Literary Fest, Novella 2022, "Under the Same Stars".	Inter	03/02/2022	Guest of Honour for Novella Inaugural event, Prof. Manpreet Kaur Kang, Dean of Social Sciences and Humanities, GGSIP University and the Chief Guest, Dr. Pallabi Borah of the Department of Folklore Research, Gauhati University	267			
Flash Fiction: Under the Same Stars	Inter	03/02/2022	Mr. Sanjiv Nandan Prasad from Hansraj College	16	Isha, Nitya, Spandeeta		1st, 2nd, 3rd respectively
Photography Competition	Inter	03/02/2022	Ms. Ipsita Barua from Zurich, Switzerland as a Subject Expert	11	Debanjali Das, Soumya Tak, Harsh and Vanshika		1st, 2nd, 3rd respectively
Poetry Competition	Inter	03/02/2022	Ms. Ridhi Bhutani and Dr. Prastavana Mohan	28	Arisha Meraj, Akshat Arora, Renu Jain		1st, 2nd, 3rd respectively
Poster Making	Inter	03/02/2022	Dr. Deepesh Rathor from the Psychology Department and Dr. Shivali Sharma	6	Shubangi Goyal, Ayushi Verma		1st and 2nd respectively
Launch of Expressions Departmental Magazine		03/21/2022	Annual Day Launch				
Farewell'22		04/28/2022					
Movie Screening	Intra-college	08/17/2022	Screening of Mrs Dalloway	35			
Two-Day Poetry Workshop	Intra-college	08/29/2022-08/30/2022	Day 01: Dr. Akhil Katyal, Assistant Professor, School of Culture and Creative Expressions, Ambedkar University; and Day 02: Ms. Ridhi Bhutani, fellow at Teach For India, Founder: Project Pehli Baat; Ex-student of the Dept of English, Daulat Ram College.				138
Academic Reading and Writing Workshop	Intra-college	11/30/2022	Dr. Sakshi Wason, Assistant Professor, Department of English, Daulat Ram College, University of Delhi				63
Practical Session on Creative Movement and Communication	Intra-college	01/21/2023	Ms. Shambhavi Gupta, dancer, educator, Associate Coordinator: Pravah				20






# **GARDEN COMMITTEE**

DAULAT RAM COLLEGE

## **ANNUAL REPORT**

**2022-2023**



# GARDEN WORKSHOP SERIES I

Garden Committee conducted a workshop series on “Learning Gardening Technique: A Step Towards Entrepreneurship”. This workshop series consisted of a total of 3 workshops. The first one was based on the topic, “ Basic Techniques for Home Gardening”.

 **DAULAT RAM COLLEGE**  
University of Delhi  
Garden Committee  
Under IQAC

Organizes a Workshop Series on  
**“LEARNING GARDENING TECHNIQUES –  
A STEP TOWARDS ENTREPRENEURSHIP”**  
*TOPIC : BASIC TECHNIQUES FOR HOME GARDENING - SERIES I*

**Mr ISHTIYAK AHAMAD**  
Manager, Nature Education & Training  
Give Me Trees Trust, New Delhi

Date: 14<sup>th</sup> & 15<sup>th</sup> September, 2022      Venue: Botany Lab - A      Time: 2 pm – 4 pm

Prof. Savita Roy  
PRINCIPAL  
Prof. Rekha Kathal  
CONVENOR

Prof. Sarita Nanda  
VICE PRINCIPAL  
Dr Sunita George & Dr Vidhi Chaudhary  
CO-CONVENORS

Prof. Rajni Sahni  
IQAC COORDINATOR  
Prof. Rama Pasricha  
TEACHER-IN-CHARGE





# GARDEN WORKSHOP SERIES II

Garden Committee conducted a workshop series on “Learning Gardening Technique: A Step Towards Entrepreneurship”. This workshop series consisted of a total of 3 workshops. The second one was based on the topic, “ Developing a Herbal Garden: Nature to Nurture with Ayurveda”. It was conducted on 10th February, 2023. It had a footfall of over 100 students and teachers.



**DAULAT RAM COLLEGE**  
University of Delhi

**GARDEN COMMITTEE**  
Under the Aegis of IQAC  
organises  
A Workshop Series on

**Learning Gardening techniques: A Step Towards Entrepreneurship**  
**Topic: " Developing a Herbal Garden: Nature to Nurture with Ayurveda : Series II"**



**SPEAKER**  
**Dr. Vinod Yadav**  
Chief Medical Officer  
(CMO), CGHS  
Ayurvedic Hospital,  
Aliganj, New Delhi -  
Under Ministry of  
Health and Family  
Welfare (Govt. of  
India)



Venue : Conference Hall      Date: 10.02.2023      Time: 10:30 am onwards

Principal Prof. Savita Roy	Vice Principal Prof. Sarita Nanda	IQAC Coordinator Prof. Rajni Sahni	Convenor Prof. Rekha Kathal
Co-convenors   Dr. Sunita George   Dr. Vidhi Chaudhary   Dr. Aradhana Yadav			





# GARDEN WORKSHOP SERIES III

Garden Committee conducted a workshop series on “Learning Gardening Technique: A Step Towards Entrepreneurship”. This workshop series consisted of a total of 3 workshops. The second one was based on the topic “Bonsai and Penjing”. It was conducted on 12th April, 2023. It had a footfall of over 80 students and teachers. It was indeed a very interesting lecture by Mr. Saumik Das who is an entrepreneur and Bonsai Artist at Go Green Bonsai. He taught us about the process of growing a bonsai tree and helped us understand why it is a piece of artwork.



**G2** **DAULAT RAM COLLEGE**  
University of Delhi  
**GARDEN COMMITTEE**  
Under the Aegis of IQAC  
organises  
A Workshop Series on

**Learning Gardening Techniques: A Step Towards Entrepreneurship**  
*Series III Topic: "Bonsai and Penjing"*

Venue : Lab A      Date: 12.04.2023      Time: 11:00 am onwards

**BONSAI**

**SPEAKER**  
**Mr. Saumik Das**  
• Entrepreneur and Bonsai Artist, Grow Green Bonsai  
• Former Ambassador of South Asia Bonsai Federation (SABF)  
• Indian Bonsai Association Member

**Principal**  
Prof. Savita Roy

**Vice Principal**  
Prof. Sarita Nanda

**IQAC Coordinator**  
Prof. Rajni Sahni

**Convenor**  
Prof. Rekha Kathal

**Co-convenors** Dr. Meenam Bhatia Dr. Sunita George Dr. Vidhi Chaudhary



# **ZOOLOGY**



**Report**

**Of**

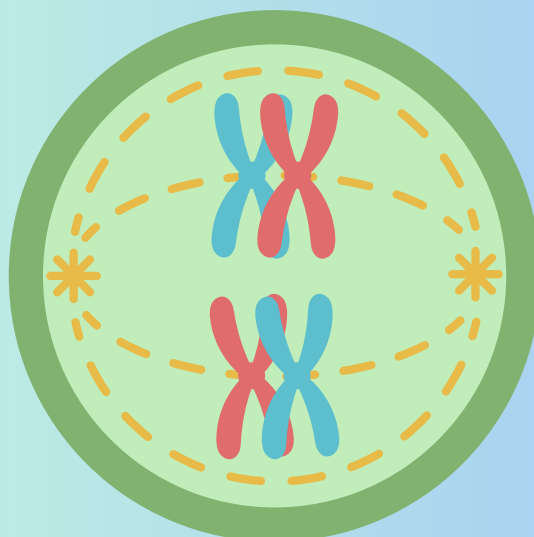
**IN-HOUSE SKILL DEVELOPMENT PROGRAM**

**UNDER IQAC**

**Daulat Ram College**

**On**

**HANDS ON TRAINING IN LIFE  
SCIENCES: TOOLS AND  
TECHNIQUES**



**Report for Skill Development Programs**  
**Daulat Ram College**  
**2022-23**

**Names of the Collaborating Departments:** Department of Zoology

**Title of the Course:** Hands on training in Life Sciences: Tools and Techniques

**Course Coordinator:** Dr. Jyoti Taneja, Co-Coordinator: Dr. Sonika Sharma

**Duration with dates:** 5 days- 13.07.22, 14.07.22, 15.07.22, 18.07.22, 19.07.22

SNo.	Date	Theme	Topic	Resource person	Affiliation	Time
1	13-Jul-22	Medical Diagnostics	BP measurement	Mr. Amit		10AM-12:00 PM
			Hb estimation	Dr. Madhu		12:00 PM-1:00 PM
			Differential leucocyte count (DLC)	Dr. Sonika Sharma		2:00 PM-3:30 PM
2		Developmental biology	Chick windowing	Dr. Pallavi		3:30 PM-4:30 PM
3	14-Jul-22	Cell Biology	Study of mitosis	Dr. Jyoti Singh		9:30 AM-11:00 PM
			Study of X inactivation in human cheek cells	Ms. Kungreiliu Panmel		11:00 AM-1:00 PM
			Principle of fixation and staining	Dr. Pallavi		1:30 PM-3:30 PM

4		Developmental biology	Observation of chicken embryonic development.	Dr. Pallavi		3:30 PM-4:30 PM
	15-Jul-22					
5		Molecular Biology	Primer designing	Dr. Sonika Sharma		9:30 AM -11:00 AM
			Polymerase Chain Reaction (PCR)	Dr. Neha Niharika		11:00 AM-12:30 PM
			DNA estimation	Dr. Sunita k. Yadav		1:30 PM-3:30 PM
6		Developmental biology	Chick windowing and observation of chicken embryonic development.	Dr. Pallavi and Dr. Jyoti Taneja		3:30 PM-4:30 PM
7	18-Jul-22	Biochemistry	Qualitative assay of protein	Dr. Madhu		9:30 AM-11:00 AM
			Enzyme activity bioassay kinetics and achromic point determination	Dr. Jyoti Taneja		11:00 AM-1:00 PM
			Amino acid separation by Paper chromatography	Mr. Amit Singh Dhaulaniya		1:30 PM-2:30 PM
8		Developmental biology	Chick windowing and observation of chicken embryonic development.	Dr. Pallavi		3:30 PM-4:30 PM
	19-Jul-22					
9		Ecology	Dissolved oxygen measurement			9:30 AM -11:30 AM



			in the water	Dr. Meenakshi Thakur		
			Turbidity and transparency study In pond	Mr. Amit		11:30 AM-12:30 PM
			Study of phytoplankton and Zooplankton	Ms. Kungreiliu Panmei		1 :30 PM-3:30 PM
10		Developmental biology	Real-time observation of embryonic development	Dr. Pallavi Sethi		3:30 PM-4:30 PM

Details of the course:

1) Description of the course: The aim of the course is to provide students with a multi disciplinary perspective to facilitate their skills in research. The comprehensive course structure encompasses valuable wet lab skills and instrumentation knowledge that will strengthen their conceptual understanding and bridge the gap of online education. The course will expose them to fundamental concepts and basic practicals to cover topics spanning life science essential course tools and techniques. Theoretical Knowledge is not complete without practical skills and the practical aspect of the course will help students to work in research labs and understand the basic life science practical experiments exposure to fill the gap in practical knowledge and would be beneficial in their future endeavors (M.Sc./ Research/other higher studies).

2) Objectives: To provide Hands on-training on Life Sciences Tools and Techniques

At the end of the course, the student should be able to:

3) Perform basic life science wet lab experiments and use of instruments

4) Have basic understanding of life science lab instruments and techniques in practical context

5) To keep pace with the new and essential technologies and expanding information in the field.

- 6) Basic medical diagnostic skills to provide better employability opportunities to graduate students.
- 7) Hands on experience of latest techniques that are in current usage in advanced research laboratories and diagnostics

Topics covered:

● **Introduction to Biology:** To learn use of microscope and micropipette, Principles of fixation and staining, Paper chromatography

○ **Medical Diagnostics techniques:** Measurement of Blood pressure, Estimation of Hemoglobin, Differential leucocyte count

● **Cell Biology, Molecular Biology and Biochemical techniques:** Study of mitosis and meiosis, Study of X inactivation in human cheek cells, Quantitative and qualitative estimation of protein, Enzyme activity bioassay kinetics and achromic point determination, Primer designing and Polymerase Chain Reaction (PCR), DNA estimation

● **Practical methods in Ecology:** Study of Pond water ecosystem

● **Key experiments in Developmental Biology:** Chick windowing method and Observation of early embryonic development

Speakers in the course:

SNO.	Name	Designation	Affiliation
1	Mr. Amit		Department of Zoology, DRC
2	Dr. Madhu		Department of Zoology, DRC
3	Dr. Sonika Sharma		Department of Zoology, DRC
4	Dr. Pallavi		Department of Zoology, DRC
5	Dr. Jyoti Singh		Department of Zoology, DRC
6	Ms. Kungreiliu Panmel		Department of Zoology, DRC

7	Dr. Meenakshi Thakur		Department of Zoology, DRC
8	Dr. Neha Niharika		Department of Zoology, DRC
9	Dr. Sunita k. Yadav		Department of Zoology, DRC
10	Dr. Jyoti Taneja		Department of Zoology, DRC

#### Number and Profile of Participants:

No. of Students	Department	Year
16	Zoology	Second year
9	Biochemistry	Second year
11	Life Sciences	Second 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. Continuous evaluation based on performance and activity during the training period.
2. Assignments taken via Google classroom including practical based questions.
3. Self practice of chick windowing and visualize developmental stages in Developmental biology.

Detailed Learning Outcomes of the Course:

1. Students learnt and familiarized with laboratory experiences.
2. Hands-on experience of all subject practicals which were missed in online education.
3. Firstly ever performed Chick windowing and real time observation of chick embryonic development.
4. Lab manual for Life science Tools and technique was made available for the students.

Feedback from Participants Regarding the Program: Hard copy feedback forms have been submitted.

(No certificates will be provided till the feedback is submitted by the participants. Committee will provide the link for the feedback form.)

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









Video 1:

<https://drive.google.com/file/d/1QaFGV2aMtTguFyeiheI8zBoGjf9UICd3/view?usp=sharing>

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Video 2:

<https://drive.google.com/file/d/1QbZgtBHf8CN4Yc-qJBeHyqPXEVzpVUYG/view?usp=sharing>

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Government of India  
Ministry of Commerce and Industry  
Department for Promotion of Industry and Internal Trade  
Office of the Controller General of Patents, Designs and Trade Marks

## CERTIFICATE OF APPRECIATION

*Presented to*


**DAULAT RAM COLLEGE**

*In recognition of active participation in the **National Intellectual Property Awareness Mission (NIPAM)** launched by the Government of India on the occasion of the 75th anniversary of independence under the banner "Azadi Ka Amrit Mahotsav" to create widespread awareness on Intellectual Property Rights (IPR). The exceptional contribution in successfully organizing the awareness programme on **February 25, 2023** in association with **Intellectual Property Office, Delhi** by providing your valuable time and support is highly appreciated.*

*Solicit your continued support for outreach of IPR far and wide.*

Date: March 06, 2023



  
(Prof. (Dr) Unnat P. Pandit)  
CONTROLLER GENERAL OF  
PATENTS, DESIGNS & TRADE MARKS





सत्यमेव जयते

Government of India  
Ministry of Commerce and Industry  
Department for Promotion of Industry and Internal Trade  
Office of the Controller General of Patents, Designs and Trade Marks



## CERTIFICATE

This is to certify that, **DR ANURADHA, ASSISTANT PROFESSOR** of **DAULAT RAM COLLEGE** co-ordinated in conducting the Intellectual Property Awareness program under

**NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION**

**on February 25, 2023**

Organized by  
**Intellectual Property Office, India**

**Date: March 06, 2023**



(Prof. (Dr) Unnat P. Pandit)  
CONTROLLER GENERAL OF  
PATENTS, DESIGNS & TRADE MARKS



**Report of IPR**  
**Department of Chemistry**  
**25 February 2023**

The Department of Chemistry, Daulat Ram College organized a webinar on “Intellectual Property Rights Career and Future Prospective” in collaboration with “National Intellectual Property Awareness Mission (NIPAM)” on 25 February 2023 on zoom platform. **Dr Shahida Omar**, Examiner of Patents and Designs, Indian Patent Office, New Delhi, Boudhik Sampada Bhawan, Plot no. 32, Sector 14, Dwarka, New Delhi-110078 was invited as the resource person. Nearly 80 students registered for this program. She apprised the audience about the importance of intellectual property rights which is now being used everywhere. The participants were exposed to different types of Intellectual Property Rights (IPRs) and were motivated to convert their ideas into innovation and further transformation into IP assets. The session was interactive and thoroughly enjoyed by all the participants.

Dr Darshan, Coordinator

Dr Preeti Chadha, Coordinator

Dr Anuradha, Co-coordinator

Dr Divya Mathur, Co-coordinator

**MD ATIQULLAH**

## **Capacity Building Workshop Series-1 On “Mushroom Cultivation”**

**Capacity Building Workshop Series-1 on “Mushroom Cultivation”** was organised for the students on 28th September, 2022. More than 100 students participated from various streams. The workshop included an insightful lecture by Prof. Rajni Gupta, Department of Botany, Kirori Mal College, University of Delhi. Her lecture was followed by the visit to Mushroom culture facility in Kirori Mal College. During the visit students had hands-on experience to participants on culturing mushrooms.





**Daulat Ram College**  
**University Of Delhi**  
**ASTITVA**  
Life Science Association



Under IQAC  
**Organises**

## **Capacity Building Workshop Series 1** **Mushroom Cultivation**



**Time : 1pm**  
**Venue: Botany Lab**  
**Date: 28th September 2022**



**Speaker: Prof RAJNI GUPTA**  
Department of Botany  
Kirori Mal College, DU

Prof. Savita Roy  
**PRINCIPAL**

Prof. Sarita Nanda  
**VICE PRINCIPAL**

Prof. Rajni Sahani  
**IQAC COORDINATOR**

Dr. Meenam Bhatia  
Dr. Pratibha Kumari  
**STAFF ADVISOR**

**Register now:** <https://bit.ly/3R3iRb0> **Last Date : 26th September 2022**  
**E-Certificate will be provided**

## Capacity Building Workshop Series- 2

on

### “Intellectual Property Rights and Biological Resources”

**Capacity Building Workshop Series- 2 on “Intellectual Property Rights and Biological Resources”** was organised on 17th January, 2023 and more than 100 students participated for same. Dr. Arun Kumar Maurya, Assistant Professor at Multani Mal Modi College, CCS University, Meerut was the guest speaker. He delivered a very informative lecture on IPR and also students were made aware how they can use IPR as their carrier. A practice module and hands-on session for students was also organised in workshop.







**Daulat Ram College**  
University of Delhi  
**ASTITVA**  
Life Science Association  
Under IQAC



*Organises*

**Capacity Building Workshop Series-II**  
**Intellectual Property Rights (IPR)**

**Date:- 17th January 2023**

**venue:- Botany Lab A**

**Time:- 1:00 p.m.**



<https://forms.gle/SDuSJx1KjYD7JM8k8>

**Last date for registration:**

**16th January 2023**

**Speaker: Dr. Arun Kumar Maurya**  
Assistant Professor  
Multanilal Modi College  
Modinagar U.P.

**Prof. Savita Roy**  
PRINCIPAL

**Prof. Sarita Nanda**  
VICE PRINCIPAL

**Prof. Rajni Sahni**  
IQAC  
COORDINATOR

**Dr. Meenam Bhatia**  
**Dr. Pratibha Kumari**  
STAFF ADVISOR

## REPORT

A lecture series was held on 27<sup>th</sup> March 2023 for Students of Botany (Hons) and Life Sciences wherein Dr. Sunita Garg, Scientist G, NIScPR delivered a lecture on “**Role of taxonomy in authentication of plants, research and development**”. The lecture gave an insight about the importance of medicinal, drug-yielding plants and their various authentication methods. Many controversial plants with same name were recognized and authentication of genuine plant was done. Through this lecture students could identify plants by their aroma, colour, taste, texture, anatomical details and secondary metabolites present in the plant.

On 27<sup>th</sup> march 2023, Dr. R. S Jaysomu, Scientist G, NIScPR delivered a lecture on “**Basics of writing a research paper**” wherein he urged the students to enhance their writing skills, to understand, increase clinical adoption and scientific impact of research papers. Report the findings of their research, methods, valuable information and present in skilful manner to the scientific community.

Approximately 125 students participated and attended the lecture series

CONVENOR: **Prof. REKHA KATHAL**

CO-CONVENOR: **Dr. ARADHANA YADAV**









Department of Zoology  
Daulat Ram College, University of Delhi  
Organises



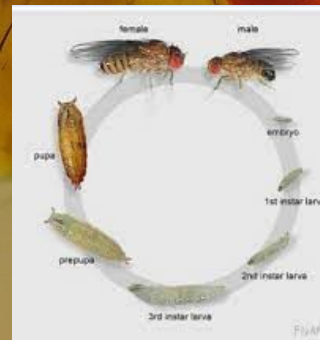
Students Training Workshop

Under aegis of IQAC

On

Tools and Techniques for *Drosophila* Maintenance

26th May-30th May



Dr. Madhu

Dr. Sonika Sharma  
Convener

Prof. Rajni Sahni  
IQAC Convener

Prof. Sarita Nanda  
Vice Principal

Prof. Savita Roy  
Principal





### *About the college*

Daulat Ram College is a premier educational institute for women founded by the Educationist, late Shri Daulat Ram Gupta in year 1960. The institute has acquired a strong identity and has evolved as a prestigious women's college with its own distinct tradition. It is engaged in imparting holistic and quality education at undergraduate level in all discipline of Science, commerce and humanities. The college is Accredited 'A' grade by National Assessment and Accreditation Council.

### *About the Department*

The Department of Zoology at Daulat Ram College was established in 1968 and currently holds the Star Department Status recognized by the Department of Biotechnology (DBT), Government of India. The department offers undergraduate courses for B.Sc (Hons.) Zoology and B.Sc Life Science. The Zoology Department has a team of skilful and enthusiastic faculty members with diverse specializations in the field of biological sciences.

### *About the Drosophila Resource Centre*

The Drosophila Resource Centre in the Department of Zoology was set up and maintained by Dr. Chitra Bhasin. Since its inception in 2013 the centre has been providing hands-on training to undergraduate students to introduce the students to this interesting insect- Drosophila. It is a favorite model organism and is used extensively to study disciplines like genetics and developmental biology. Students also learn the nuisances of setting up and maintaining stocks in the lab and food preparation. This year students have started hands-on training of basic genomics and proteomics using Drosophila.

## Schedule for the workshop

Sr. no	Date	Time	Details of the Event
1	26 May, 2023	1 pm - 2:00 pm 2:00 pm -4:00 pm	Introductory Lecture by Dr. Chitra Bhasin (Rtrd. Associate Professor, DRC). Introduction to the life cycle of Drosophila and Food preparation. Resource Person: Dr. Sonika Sharma and Dr. Madhu
2.	27th May, 2023	9:00 am -4:00 pm	Drosophila handling, Preparation of polytene chromosome from Salivary gland of Drosophila. Resource Person: Dr. Madhu and Dr. Sonika Sharma
3.	29th May, 2023	9:00 am -4:00 pm	Separation of Drosophila eye pigment using TLC technique, Isolation of Genomic DNA and total protein from Drosophila. Resource Person: Dr. Sonika Sharma and Dr. Madhu
4.	30th May, 2023	9:00 am - 4:00 pm	Gel electrophoresis and SDS-PAGE. Resource Person: Dr. Madhu and Dr. Sonika Sharma

## Report for Workshop

Name of the Department: Zoology Department

Title of the Workshop: Tools and Techniques for Drosophila Maintenance

Workshop Conveners: Dr. Madhu & Dr. Sonika Sharma

Duration with dates: 26<sup>th</sup> - 30<sup>th</sup> May, 2023, 9am-4pm

Sr. no	Date	Time	Module/topic title Name of the Speaker	Affiliation of the Speaker
1	26 May, 2023	9:00 am - 4:00 pm	Introductory Lecture by Dr. Chitra Bhasin (Rtrd. Associate Professor, DRC), Introduction to the life cycle of Drosophila and Food preparation/Dr. Sonika Sharma and Dr. Madhu	Assistant Professor, DRC, DU
2.	27th May, 2023	9:00 am - 4:00 pm	Drosophila handling, Preparation of polytene chromosome from Salivary gland of Drosophila./Dr. Madhu and Dr. Sonika Sharma	Assistant Professor, DRC, DU
3.	29th May, 2023	9:00 am - 4:00 pm	Separation of Drosophila eye pigment using TLC technique, Isolation of Genomic DNA and total protein from Drosophila/ Dr. Sonika Sharma and Dr. Madhu	Assistant Professor, DRC, DU
4.	30th May, 2023	9:00 am- 4:00 pm	Gel electrophoresis and SDS-PAGE/ Dr. Madhu and Dr. Sonika Sharma	Assistant Professor, DRC, DU

Details of the course:

Description of the course:

This workshop was organized to acquaint students with the Drosophila which is a well known animal model in the field of research and development. Students were made to

learn its handling, culturing and basic molecular techniques which can be exploited by the students in their further research work.

Objectives:

- A. Introduction to the life cycle of Drosophila
- B. Culturing, handling and maintenance of Drosophila
- C. Introduction to the basic molecular techniques using Drosophila

3) Topics covered:

- A. life cycle of Drosophila, Food preparation
- B. Handling and culturing of Drosophila
- C. Preparation of polytene chromosome, separation of eye pigment using TLC
- 4. Isolation of Genomic and total protein from Drosophila
- 4. Agarose gel electrophoresis and SDS-PAGE

Speakers in the course: NA

Sr. no.	Name Designation	Department/Affiliation
1.	Dr. Chitra Bhasin/ Retired Associate Professor	Zoology Department, Daulat Ram College, University of Delhi

Number and Profile of Participants:

Name of Students	Department/Year
1. Diya 2. Sheetal 3. Shobha 4. Akanksha Adhikari 5. Kritika Garg 6. Ayushi 7. Isha Dagar 8. Bharti Sharma 9. Neggat Ferdous 10. Nirjala Kumari 11. Rizul 12. Sweta Raj 13. Roshani Yadav	B.Sc. Life Sciences, 4th Semester, 2nd Year



Methods of Assessment of Participants: 1. Students were asked to submit the report about all the tools and techniques they had learnt during the workshop.

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



## Report for Workshop

Name of the Department: Zoology Department

Title of the Workshop: Tools and Techniques for Drosophila Maintenance

Workshop Conveners: Dr. Madhu & Dr. Sonika Sharma

Duration with dates: 26<sup>th</sup> - 30<sup>th</sup> May, 2023, 9am-4pm

Sr. no	Date	Time	Module/topic title Name of the Speaker	Affiliation of the Speaker
1	26 May, 2023	9:00 am - 4:00 pm	Introductory Lecture by Dr. Chitra Bhasin (Rtrd. Associate Professor, DRC), Introduction to the life cycle of Drosophila and Food preparation/Dr. Sonika Sharma and Dr. Madhu	Assistant Professor, DRC, DU
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3.	29th May, 2023	9:00 am - 4:00 pm	Separation of Drosophila eye pigment using TLC technique, Isolation of Genomic DNA and total protein from Drosophila/ Dr. Sonika Sharma and Dr. Madhu	Assistant Professor, DRC, DU
4.	30th May, 2023	9:00 am- 4:00 pm	Gel electrophoresis and SDS-PAGE/ Dr. Madhu and Dr. Sonika Sharma	Assistant Professor, DRC, DU

Details of the course:

Description of the course:

This workshop was organized to acquaint students with the Drosophila which is a well known animal model in the field of research and development. Students were made to

learn its handling, culturing and basic molecular techniques which can be exploited by the students in their further research work.

Objectives:

- A. Introduction to the life cycle of *Drosophila*
- B. Culturing, handling and maintenance of *Drosophila*
- C. Introduction to the basic molecular techniques using *Drosophila*

3) Topics covered:

- A. life cycle of *Drosophila*, Food preparation
- B. Handling and culturing of *Drosophila*
- C. Preparation of polytene chromosome, separation of eye pigment using TLC
- 4. Isolation of Genomic and total protein from *Drosophila*
- 4. Agarose gel electrophoresis and SDS-PAGE

Speakers in the course: NA

Sr. no.	Name Designation	Department/Affiliation
1.	Dr. Chitra Bhasin/ Retired Associate Professor	Zoology Department, Daulat Ram College, University of Delhi

Number and Profile of Participants:

Name of Students	Department/Year
1. Diya 2. Sheetal 3. Shobha 4. Akanksha Adhikari 5. Kritika Garg 6. Ayushi 7. Isha Dagar 8. Bharti Sharma 9. Neggat Ferdous 10. Nirjala Kumari 11. Rizul 12. Sweta Raj 13. Roshani Yadav	B.Sc. Life Sciences, 4th Semester, 2nd Year

Methods of Assessment of Participants: 1. Students were asked to submit the report about all the tools and techniques they had learnt during the workshop.

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







**REPORT**  
**of**  
**Summer Training**  
**Workshop in Zebrafish Model system**  
**5<sup>th</sup> - 16<sup>th</sup> June 2023**  
**Organized by**  
**Zebrafish Lab Facility, Daulat Ram College,**  
**University of Delhi**  
**In**  
**Collaboration with**  
**Sansriti Foundation, Delhi**  
**Submitted To**  
**IQAC, Daulat Ram College**



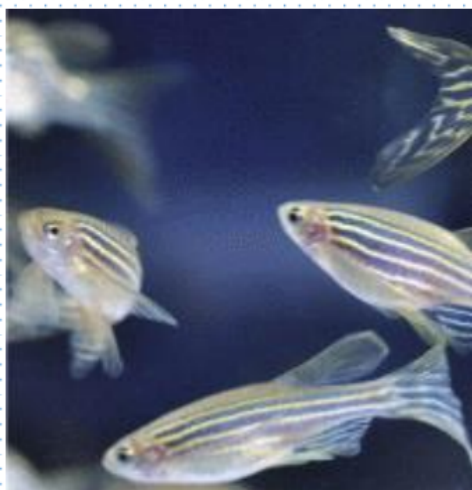
# DAULAT RAM COLLEGE UNIVERSITY OF DELHI

*In Collaboration with*

Sansriti Foundation, Delhi

*Organizes*

## Summer Training Workshop in Zebrafish Model system



**Dates: 5<sup>th</sup> - 16<sup>th</sup> June 2023**

### Highlights

- Zebrafish Husbandry, breeding , egg collection
- Study developmental stages of zebrafish embryo
- Perform zebrafish embryo toxicity, behavioral assays
- Zebrafish model organism in Research
- Design experiments and develop hypothesis using zebrafish model system

**Certificates will be given to all participants**

### Contact

[Padmshree.m@gmail.com](mailto:Padmshree.m@gmail.com), [rads0280@gmail.com](mailto:rads0280@gmail.com)

### Patron

**Prof. Savita Roy**  
Principal

### Advisor

**Prof. Sarita Nanda**  
Vice-Principal &  
TIC Dept. of Biochemistry

### Convener Workshop

**Prof. Padmshree Mudgal**

### Mentors

**Prof. Padmshree Mudgal** ( Prof. Biochemistry)  
**Dr. Chitra Bhasin** (Assoc. Prof. Zoology)  
**Dr. Adita Joshi** (Director, Sansriti Foundation)  
**Dr. Radhika Gupta** (Asstt. Prof. Biochemistry)

**Convener:** Dr. Padmshree Mudgal, Professor  
Department of Biochemistry, Daulat Ram College.

**Resource Persons:** Dr. Padmshree Mudgal, Professor  
Department of Biochemistry, Daulat Ram College.

Dr. Chitra Bhasin, Assoc. Professor ( Super Annuated)  
Department of Zoology, Daulat Ram College

Dr. Adita Joshi, Sansriti Foundation, Delhi

Dr. Radhika Gupta, Asst. Prof.  
Department of Biochemistry, Daulat Ram College

The Summer training Workshop in Zebrafish Model system was inaugurated by Prof. Payal Mago, Director SOL, and Chairperson Skill Development Committee, Delhi University. Special guest of honour, IQAC convenor, Daulat Ram College and Skill Development program Convenor, Daulat Ram College also graced the occasion.

Prof. Payal Mago interacted with students and enlightened them with various entrepreneurship ideas and opportunities that are waiting to be explored. Her talk really enthused the students to think beyond the normal and push the envelope to harness their potential to the maximum.

Day 1, 05/06/23 Monday

- Introduction to zebrafish as a model organism
- Handling of fishes
- Zebrafish husbandary
- Breeding set up
- Observation of zebrafish larvae

Day 2, 06/06/23 Tuesday

- Egg collection
- Observation of eggs
- Lunch box microscope setup
- Basic developmental biology

Day 3, 07/06/23 Wednesday

- Larval stages observation
- Developmental biology

Day 4, 08/06/23 Thursday

- Zebrafish as a Research model



- Setting up Zebrafish Toxicity Assays

Day 5, 09/06/23 Friday

- Toxicity Assays continued
- Zebrafish husbandry, Feed and other requirements

Day 6, 12/06/23 Monday

- Toxicity Assays continued
- Regeneration assays performed
- Experimental design

Day 7, 13/06/23 Tuesday

- Zebra fish RNA isolation, Gel run
- RT-PCR design, Primer design

Day 8, 14/06/23 Wednesday

- Behavioral Assayed performed
- Regeneration results observed

Day9, 15/06/23 Thursday

- Students presented their results of Toxicity assays performed and discussed their results.

Day9, 16/06/23 Friday

- Paper Presentation continued
- Valedictory Function: Vice Principal Prof. Sarita Nanda interacted with the students and gave away the Certificates. Students shared their experiences of the workshop.













Students Participants (23)				
Name	course	College/ institution	Contact No.	email Id
Sweta Raj	Bsc. Life Science	Daulat Ram College	6202351546	raj07sweta@gmail.com
Riya chaubey	Bsc biochemistry hons	Daulat Ram College	9289652648	chaubeyriya13@gmail.com
Aniruddh Agarwal	Class 9th	Sardar Patel Vidyalaya, Lodhi Road, New Delhi.	9871090746	aniruddh.agarwal09072009@gmail.com
Purvi Bindal	Bsc (hons)biochemistry	Daulatram	9468290755	Purvibindal27@gmail.com
Shubhra Shekhar Tripathi	B.Sc. Hons. Biochemistry 3rd year	Daulat Ram College, Delhi University	9958638486	shubhratripathi004@gmail.com
Rakshita singh	Bsc biochemistry hons	Daulat Ram college	9810441638	rakshitas53@gmail.com
R Rajeshwari	Bsc Hons Biochemistry	Daulat Ram College	8106871273	rajeshwariramagopal@gmail.com
Reetu Rana	BSC Hons biochemistry	Daulat Ram College	8851580990	reeturana2892@gmail.com hai
Anupama Kabdwal	Bsc Biochemistry hons	Daulat Ram College	8287481316	anupamakabdwal@gmail.com
Diksha Yadav	Bsc Biochemistry (H)	DRC	7428766196	dikshay2003@gmail.com
Syona Agnihotri	Bsc (h) Biochemistry	Daulat Ram college	9910549728	syonaagnihotri@gmail.com
Mansi Singh	B.Sc (H) Biochemistry	Daulat Ram College	9953103130	Mansi.singh0227@gmail.com
Nandini Singh	Bsc. (Hons ) Biochemistry	Daulat Ram College	9373063270	singh.nandini5207@gmail.com
Aditi Jha	BSc. (H) Biochemistry	Daulat Ram College	7321939350	aditijha1206@gmail.com
Komal Attri	Bsc (H) biochemistry	Daulat Ram College	9466411903	komalattri.1806@gmail.com
Utkarshita Dhawan	B.Sc. (H) Biochemistry	Institute of Home Economics, Delhi University	9811511224	utk.d.10@gmail.com
Ananya Taneja	Bsc hons. Biochemistry	Daulat Ram College	9999558649	ananyataneja653@gmail.com
Tenzin Nyidon	Bsc (Hons) biochemistry	DRC	7876712929	legennyidon@gmail.com

Hargun Saini	Biochemistry hons	Daulat Ram College, University of Delhi	8171337366	sainihargun216@gmail.com
Akshat Mishra	Bsc zoology hons	Hansraj college	8755251213	Akshat03mishra@gmail.com
Ayushi Malik	Biochemistry (H)	Daulat Ram College	8630585297	ayushimalik004@gmail.com
Parnika joshi	Bsc. (Hons.) Biochemistry	Daulat ram college	8130864322	parnikajsh25@gmail.com

## Feed Back Comments

1. The workshop skilled us in a sequential manner.
2. Very nice experience. Can't wait for the next workshop.
3. It was a nice workshop, it came out as great experience i will look further for such more workshops.
4. The workshop was extremely helpful. We actually got to learn about many things. The teachers were super helpful.  
I would like to participate in many such workshops.
5. This workshop was very informative and I learned so much about Zebrafish biology and various methods used in experiments related to them. All the teachers and mentors were excellent and they really made the workshop an invaluable experience.
6. The workshop was very insightful. I have learned so much from the workshop. I'll be looking forward to such workshops in future.  
Very detailed and intensive knowledge was imparted while also encouraging research and research related qualities along with great mentors to guide  
Everyday we have learnt something new... it felt like a jist and accumulation of all knowledge and experience of our professors being transferred to us. We got a feel of research and actually felt like researchers!
7. It would be great if the day of toxicity assay could be extended as we got a chronic toxic whose effect is only shown 5-7 dpf. Otherwise it was a great workshop and was worth the stay.  
We all got hands on experience with the model organism. Along with that we were able to gain a lot of knowledge about science and technology nowadays. The teachers were very friendly and helped in every possible thing during the workshop. My experience personally was great.  
I have attended many workshops but this one was the most planned and organised workshop. The faculty behind this workshop was very nice and had a great way of making us understand the procedure of the workshop. The workshop was very interactive and they had all the equipments.

8. Along with us getting the knowledge and learning the way to handle zebrafish and to perform research on, it was fun session of 10 days. I would recommend them to conduct more of these type of workshops in every holiday.

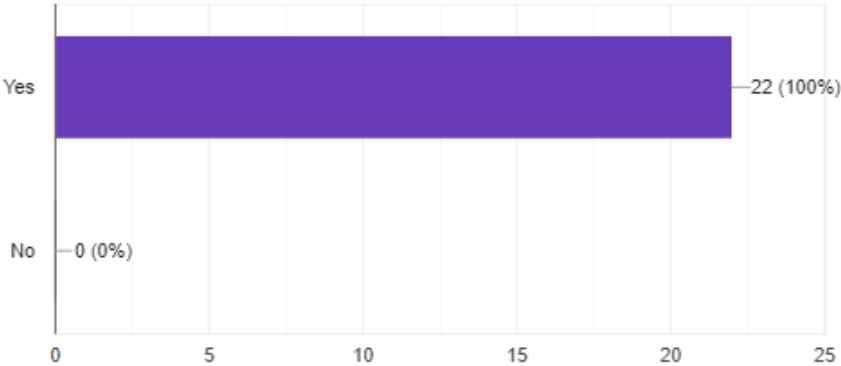
9. I personally wanted to understand how we develop zebrafish models in context of infectious diseases and what are the limitations involved.



Did the workshop meet your expectation

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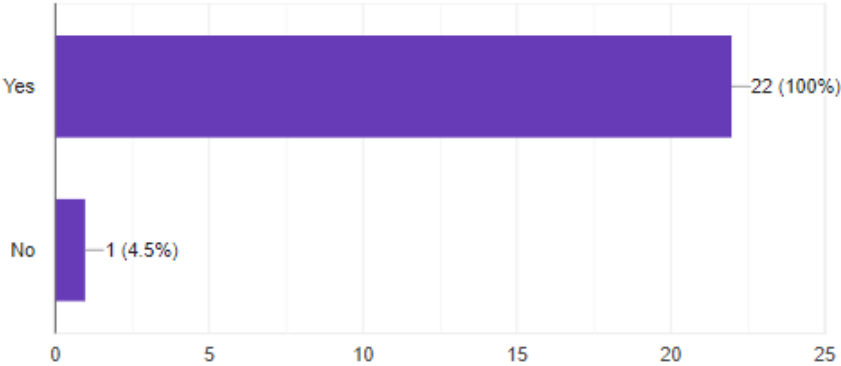
22 responses



Are you satisfied with the content of the workshop

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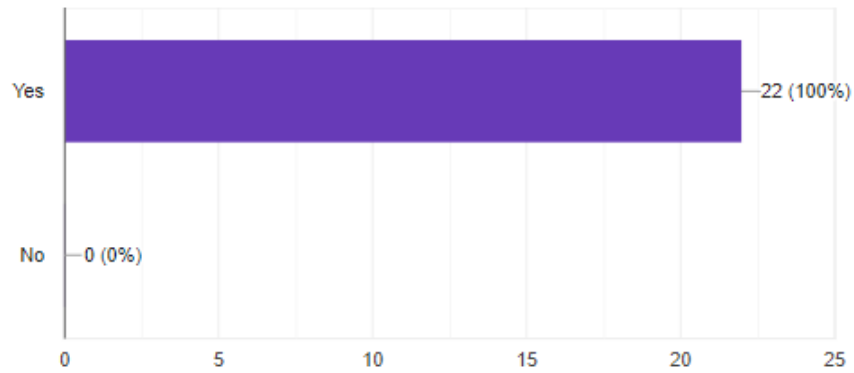
22 responses



Are you satisfied with the hands on training provided in the workshop

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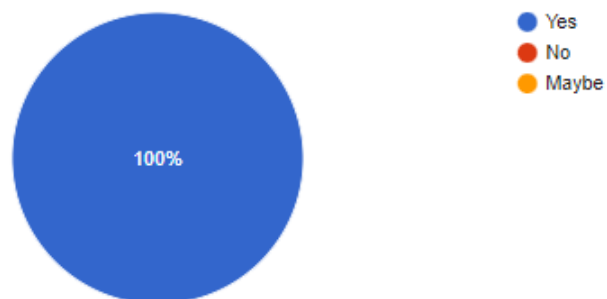
22 responses



would you recommend such workshops to your colleagues

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22 responses



Workshop in Zebrafish Model system	12/13/2022 to 12/19/2022	Mentors: Prof. Padmashree Mudgal, Dr. Adita Joshi, Director Sansriti Foundation and Dr. Radhika Gupta	13 students from DRC, DTU, IIT BHU			
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