



MAHATMA GANDHI MISSION DENTAL COLLEGE & HOSPITAL

Accredited by NAAC with "A++" Grade
Junction of NH-4 and Sion Panvel Expressway
Sector-1, Kamothe, Navi Mumbai- 410 209.
E-Mail: mgmdch@mgmmumbai.ac.in

Dr. Srivalli Natarajan
Dean

Tel: 022-27436604
Fax: 91-22-2743185

NO.MGM/DCH / 155/2025

Date: 19/04/2025

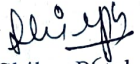
CIRCULAR NO.: 41/2025

VALUE ADDED PROGRAM

This is to inform that the Department of Oral & Maxillofacial Pathology, MGM Dental College & Hospital, Kamothe, Navi Mumbai is organizing a value added course on Fundamentals of Human genetics (Dento-Genomics) for III BDS students. The details of the same are mentioned below:

Sr.No	Title of the Program	Date	Time
1	Introduction 1.History of Genetics 2.Genetic disorders	5/05/25	8.30-9.30 am
	Understanding the DNA and replication, Understanding the chromosomes	6/05/25	2.30-3.30 pm
	Understanding transcription, translation, Cell Cycle, meiotic segregation, Embryogenesis, organogenesis. Gene	7/05/25	1.30-2.30 pm
	Genotype, phenotype and mutations	12/05/25	8.30-9.30 am
2	Genes in Pedigree	13/05/25	2.30-3.30 pm
	Chromosomal diseases-numerical and structural Patterns of genetic inheritance	14/05/25	1.30-2.30 pm
3	Genetics – Oral Health	26/05/25	8.30-9.30 am
	Genetics – Oral Health	27/05/25	2.30-3.30 pm
4	Introduction to Cancer Genetics	28/05/25	1.30-2.30 pm
6	Gene therapy	9/06/25	8.30-9.30 am
	Laboratory Genetics-Cyto-Genetic and molecular Genetic diagnostic techniques	10/06/25	2.30-3.30 pm
7	Laboratory Visit	11/06/25	1.30-2.30 pm

Looking forward for your participation.


Dr. Shilpa Patel
Head of Department
Oral & Maxillofacial Pathology




Dr. Srivalli Natarajan
Dean

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All HODS Dental



MGM DENTAL COLLEGE AND HOSPITAL

Grade 'A' Accredited by NAAC

Sector-01, Kamothe, Navi Mumbai - 410 209

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E-mail : mgmdchnavimumbai.edu.in

Value Added Course

FUNDAMENTAL OF GENETICS



Mahatma Gandhi Mission's
Dental College and Hospital

Value Added Course (Dento-Genomics)

[Dept of Oral Pathology and Microbiology]

Fundamentals of Human Genetics

Introduction-

Genetics is the important branch of biology deals with the study of inheritance, including the interplay of genes, DNA variation and their interactions with environmental factors. Genetics is not only genes but complex, minimally revealed blue print of precious life on earth. Evolution of mankind and evolution of biology on earth is due to alteration in genomic sets. While genome consists of nucleotide sequence of DNA where, all genetic information of a living organism is stored. Almost all cells in the human body consist of complete copy of genome that needed for development, growth and further repair. Any minute variation or defect in DNA sequence leading to characteristics abnormality or disease

Genetics deals with study of chromosome, DNA, RNA and their proteins leading to inherited characteristics, which are normal or abnormal related to physical, mental health of an individuals or familial, race or population. There is exponential progress in genomic research projects which help in understanding the involved gene their characteristics related disease and developmental deformities.

The science of Genetics has progressed exponentially after human genome project in year 2003. We have mapped human genome which helps in understanding the genetic basis of characters, diseases and also helps in inventing new treatments for these diseases even at sub molecular level. We are on the brink of developing precision medicine, i.e. medicines based on genotype of particular individual. Gene therapy, Gene editing has already made success stories. As we are witnessing the next revolution in medicine as Genetics, it's imperative to provide knowledge, understanding, and application of genetics for human diseases. **The Fundamentals of Human Genetics course** will take all the students from basics to advances in Genetics and keep them updated about this field which is going to have tremendous impact on medical practice in recent future.

Course outline - 16 hours course spread over 2 months, every Saturday, 2-4pm

1. An introduction to human Genetics
2. The cell cycle
3. Understanding the chromosomes
4. Understanding the DNA, RNA and basis of inheritance
5. Modes of inheritance
6. Chromosomal Diseases
7. Oral Developmental Genetics/ embryogenesis and organogenesis/ Dysmorphology
8. Biochemical Genetics- Oral Diseases originated from defect in genes
9. Oral Cancer genetics
10. Laboratory Genetics- Cyto-genetic and molecular genetics techniques for investigations in
11. Genetic counseling

12. Genetic Screening.

Week 1-

- A. Introduction 1. History of Genetics 2. Genetic disorders.
- B. Understanding the DNA and replication,
- C. Understanding transcription, translation, Gene
- D. Genotype, phenotype and mutations, Cell Cycle, meiotic segregation , Embryogenesis, organogenesis

Week 2-

- A. Genes in Pedigree- understanding terminologies.
- B. Patterns of genetic inheritance- Mendelian and non Mendelian

Week 3-

- A. Understanding the chromosomes
- B. chromosomal diseases- numerical and structural

Week 4-

- A. Genetics- oral health (Part 1)
- B. Genetics- oral health (Part 2)

Week 5-

- A. Introduction to Cancer Genetics (Part 1)
- B. Introduction to Cancer Genetics (Part)

Week 6-

- A. Introduction to Cancer Genetics
- B. Gene therapy

Week 7-

- A. Laboratory Genetics-Cyto-Genetic and molecular Genetic diagnostic techniques

Week 8-

- A. Laboratory Visit (Central Research Lab MGMIHS)

One pre-test and one post-test (50 one word questions- answers) on above topics, following which certificates can be given for completion of “Fundamental of Human Genetics Course”

Course Coordinator – Dr. Kamlesh Dekate

Resource person: Dr. Niharika Swain
Dr. Shradha Ghaisas
Dr. Yogesh Patil



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Plot No. 1 & 2 Sector-01 (Old 18 & 19),
Kamothe, Navi Mumbai- 410209
E-Mail ID: mgmdch@mgmmumbai.ac.in



Value Added Course

Course Name: Fundamentals of Human Genetics
2024-2025

Date: 05/05/2025 to 11/06/2025

Department: ORAL PATHOLOGY AND
MICROBIOLOGY

Resource Person: 1. Dr. Kamlesh Dekate

Participants: III B.D.S. (107)

Content:

To understand basic concept of origin and structure and functions of genes and chromosomes

Enabling participants to correctly understand the terminologies of Genetics.

To enlighten students on association/role of genetics in oral health and diseases.

To make students aware on advanced laboratory techniques through lectures and lab visits.

The goal of the value added course was to improve participants' theoretical and clinical knowledge of genetics through a theory lecture, a lab demonstration on an advanced machines.

Skills Acquired:

Under the guidance of Dr. Kamlesh Dekate, Dr. Niharika Swain and Dr. Shradha Ghaisas, the program was organized for III B.D.S. students. Critical basics, clinical and theoretical skills are taught to the students both individually and in groups during the program.

The participants learned about the Basic foundation of genetics, such as Cell cycle, chromosome, inheritance pattern, genetic mutation, and the chromosomal as well as genetic diseases, role of genetics in embryogenesis to developed oral structure and diseases like oral cancer. The participants made aware about an importants of armamentarium, diagnostic kit and their procedure and their future scope in dentistry.

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Sign:

Professor & Head

Dept. of Oral Pathology & Microbiology
MGMA Dental College & Hospital
Sec. 18, Kamothe, Navi Mumbai - 410 209.

Certificate Template:

Speaker Certificate Template

MGM Dental College and Hospital, Navi Mumbai

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Department of Oral Pathology and Microbiology

CERTIFICATE

OF APPRECIATION

AWARDED TO

Dr. Hamlesh Dekate

for contributing as a speaker in Value Added Course on
FUNDAMENTALS OF HUMAN GENETICS (DENTO-GENOMICS)
held at MGM Dental College and Hospital organized during the period of
05/05/2025 to 11/06/2025.

S. Sridhar
Dr. Shrivallji Natarajan
Dean
MGM Dental College and Hospital



Shilpa
Dr. Shilpa Patel
HOD
Department of Oral Pathology

MGM Dental College and Hospital, Navi Mumbai

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Department of Oral Pathology and Microbiology

CERTIFICATE

OF APPRECIATION

AWARDED TO

Dr. Niharika Swain

for contributing as a speaker in Value Added Course on
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S. Sridhar
Dr. Shrivallji Natarajan
Dean
MGM Dental College and Hospital



Shilpa
Dr. Shilpa Patel
HOD
Department of Oral Pathology

Sign:

Shilpa

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MGM Dental College and Hospital, Navi Mumbai

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CERTIFICATE

OF APPRECIATION

AWARDED TO

Dr. Shraddha Ghaisas

for contributing as a speaker in Value Added Course on
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held at MGM Dental College and Hospital organized during the period of
05/05/2025 to 11/06/2025.

S. Natarajan
Dr. Shrivalli Natarajan
Dean
MGM Dental College and Hospital



Shilpa Patel
Dr. Shilpa Patel
HOD
Department of Oral Pathology

MGM Dental College and Hospital, Navi Mumbai

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Department of Oral Pathology and Microbiology

CERTIFICATE

OF APPRECIATION

AWARDED TO

Dr. Yogesh Patil

for contributing as a speaker in Value Added Course on
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S. Natarajan
Dr. Shrivalli Natarajan
Dean
MGM Dental College and Hospital



Shilpa Patel
Dr. Shilpa Patel
HOD
Department of Oral Pathology

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Sign: *Shilpa Patel*
Professor & Head
Dept. of Oral Pathology & Microbiology
MGM Dental College & Hospital
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Participant Certificate Template

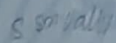
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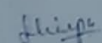
Department of Oral Pathology and Microbiology

CERTIFICATE
OF PARTICIPATION
AWARDED TO

for valuable participation in Value Added Course on
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held at MGM Dental College and Hospital organized during the period of
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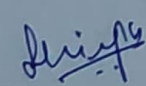

Dr. Shrivalli Natarajan
Dean
MGM Dental College and Hospital




Dr. Shilpa Patel
HOD
Department of Oral Pathology

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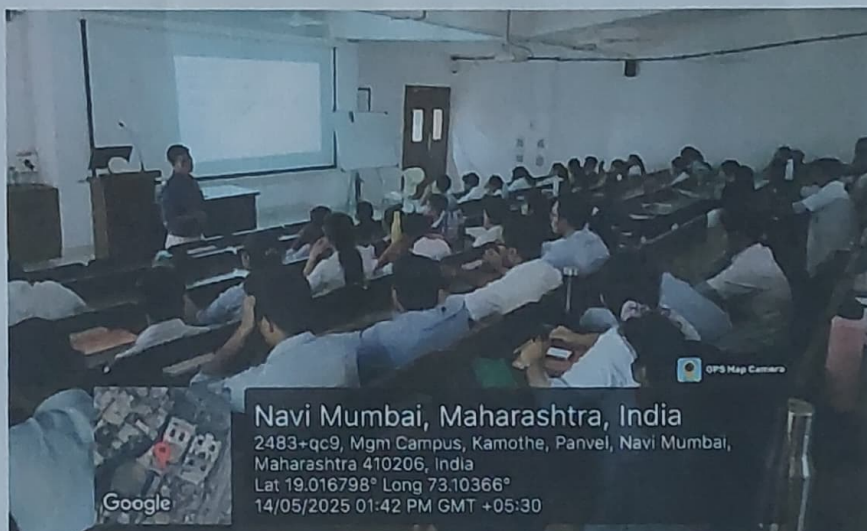
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Professor & Head

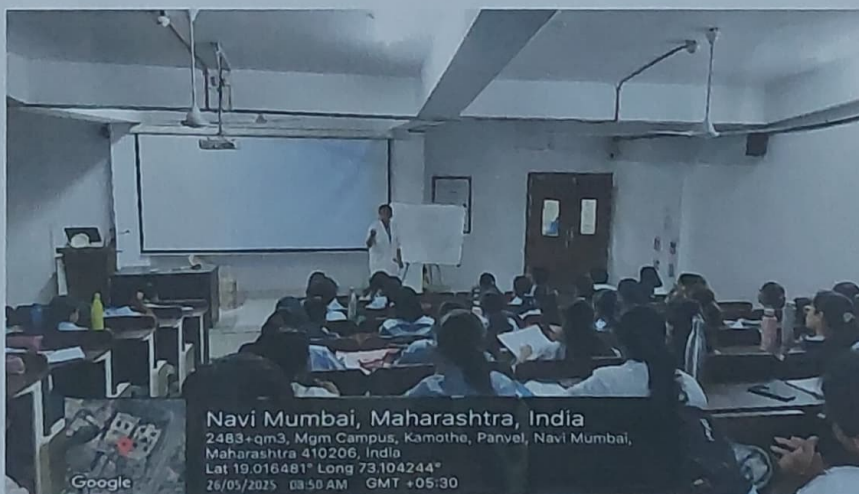
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DR. KAMLESH DEKATE INTRODUCING BASICS OF GENETICS TO PARTICIPANTS



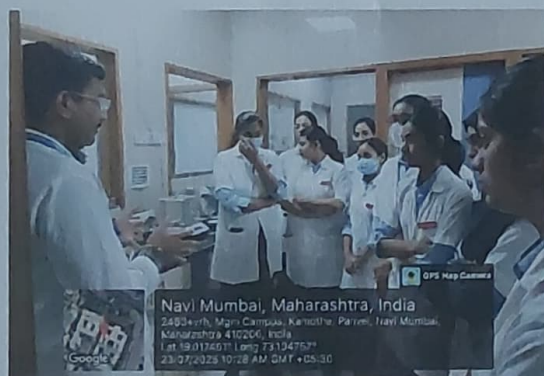
DR. NIHARIKA SWAIN DEMONSTRATING CLINICAL APPLICATION OF GENETICS IN DENTISTRY TO PARTICIPANTS

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DR. SHRADDHA GHAISSAS DISCUSSED ADVANCED TECHNOLOGIES IN GENETICS WITH PARTICIPANTS



DR. YOGESH PATIL DISCUSSED ADVANCED TECHNOLOGIES IN GENETICS WITH PARTICIPANTS IN CENTRAL RESEARCH LAB.

Sign: *[Signature]*

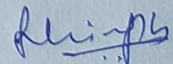
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 Sec. 18, Kamothe, Navi Mumbai - 410 209.

LIST OF PARTICIPANTS

Sr. No.	Name
1	AARYA JATIN PALKAR
2	ABDUL BASIT KHALIL KHAN
3	ADISHREE PRAMOD PATIL
4	AGRAWAL KHUSHI SANJAY
5	AINAPURE HARSHALA NANASAHEB
6	ANSARI SIDRAH SOHEL
7	ANSHU BHARDWAJ
8	ATAR MUSKAN MANJUR
9	BABARIYA KRISHA MAHESHKUMAR
10	BALMIKI NOOPUR YOGESH
11	BARASKAR AKANKSHA MAHESH
12	BATHEJA SOURABH HARESH
13	CHHEDA JAHNAVI MAYOOR
14	CHIKHALE RASIKA POPAT
15	DANI REYA KAILASH
16	DESAI PRATIK DILIP
17	DESHPANDE SHREYA SUNIL
18	DESHPANDE VAIBHAVI YOGESH
19	DHONDAGE AKANKSHA RAJKUMAR
20	DIYA SOUMEN CHAKRAVARTY
21	DURWAS ANANNYA PURUSHOTTAM
22	GAIKWAD JAGRUTI ASHOK
23	GAVIT TRUPTI ASHOK
24	GITE NEHA GAJANAN
25	GODBOLE ARUSHI
26	GORE SANKET SATISH
27	GUPTA SAKSHI MALCHAND
28	GUPTA SNEHA RAJENDRA
29	HAJERI ANVI GOPALSINGH
30	JAIN KHUSHI ASHOK
31	JAIN PRISHA MAHAVIR
32	JAIN SANYA DEVENDRA
33	JAWAL RENUKA ARUN
34	JOSHI ATHARVA AVINASH
35	KADIWAL ATHARV CHANDRASHEKHAR
36	KAPPE RUTUJA PRAVIN

Sign:



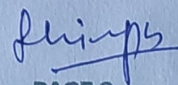
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37	KAPSE ADITYA SANJAY
38	KATARIYA NAMRATA LATISH
39	KATKAMWAR VARAD SURESH
40	KHODADE SHRAWANI SUHAS
41	KOKATE PRAJAKTA SANJAY
42	KOLI DAMINI RAJU
43	KONNUR APARNA RAHUL
44	MAHAJAN MUGDHA RAJENDRA
45	MAHTO KOMAL ANIL
46	MAHURE ADITYA SANJAY
47	MANKAR ASTHA PRASHANT
48	MAYEKAR ADITI AVINASH
49	MHAISKAR KHUSHI PRAMOD
50	MOHAMMED KAIF ABDUL KADIR KURESHI
51	MRUNAL GAWALE
52	MUBASSHERA MOHAMMED SAJID
53	MURARKA RIYA RAJESH
54	NADAR JIVYAA SELVAKUMAR
55	NANDINI BHANUDAS KHATAVKAR
56	PARMAR DARSHI NILESH
57	PARTH SATISH VICHARE
58	PATANI VANSHI VIPUL
59	PATEL RAJVI VIKESH
60	PATIL AAKANSHA NILESH
61	PATIL HARSHITA CHANDRAKANT
62	PATIL KASHISH JITENDRA
63	PATIL VAISHNAVI VINAYAK
64	PATIL YUKTI RAOSAHEB
65	PILLAI NANDINI BALASUBRAMANYAN
66	PRADNYA SANDEEP SALVE
67	PREITY VAIKKUNTH PATIL
68	PRIYANKA PADHY
69	RASKAR BHAGYASHREE DADASAHEB
70	ROHAN MANOJKUMAR CHAUDHARI
71	SALUNKHE TANISHQ CHARUDATTA
72	SANJEEVANI K PARMALE
73	SAVARDEKAR DATTATRAY RAJU

Sign:



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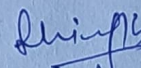
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74	SHAIKH KARISHMA MOHIYODDIN
75	SHARMA KHUSHI SARIT
76	SHREEPRASAD AVINASH MAHAJAN
77	SHREYAS MANOJ MHATRE
78	SINGH SHREEGEETA MUKESH
79	SONONE ISHITA PRAMOD
80	SPRUHA MANISH SURVE
81	TALELE RUCHITA SUNIL
82	TANISHA SATURDEKAR
83	TANISHKA SANTOSH PATIL
84	TATHED REETU RAJESH
85	THAKUR SARVESH SUHAS
86	THORAT SHRUTI AMOL
87	VALECHA LAVISHA ANIL
88	VALVI NEHA SANJAY
89	VANNAM SHRAVANI LAXMAN
90	VAZE AARYA SANJAY
91	VHAVAL ANUSHKA RAJESH
92	VISPUTE SAE PRAVIN
93	ZANJAD JANHVI VIJAY
94	ZUBIYA MOHAMMED SAJID
95	JANKAR HRITIK VISHNU
96	DALVI OM VIRENDRA
98	SHIFA ALTAF INAMDAR
97	SHRUTI T SAJI
98	DHANANI MAITRI KAPIL
99	LADHANI DHRUVI ASHISH
100	PARAB HARSHALI MANOHAR
101	PRITAM VINAYAK THORAT
102	RATHOD VEDIKA KAILASH
103	SAWANT RIYA SANDEEP
104	VARAK SHRUTIKA DIPAK
105	KEKAN POOJA BHAGWAT
106	GOGATE NACHIKET ASHISH
107	SHIFA ALTAF INAMDAR

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Dept. of Oral Pathology & Microbiology

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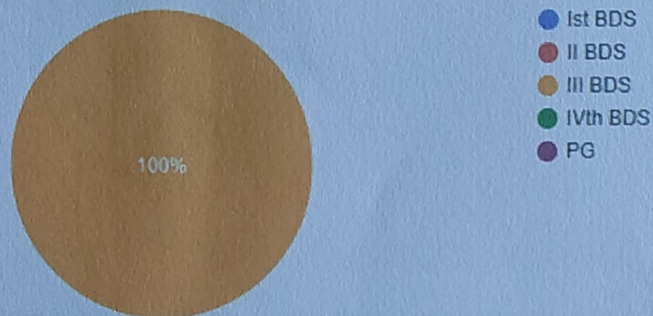
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Feedback

Year of Study

74 responses



How relevant as knowledge do you think was the theme of course lectures for you?

74 responses



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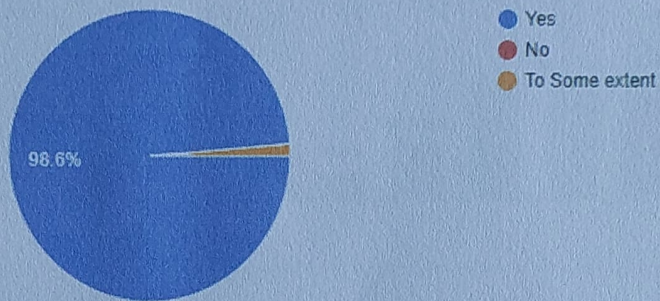
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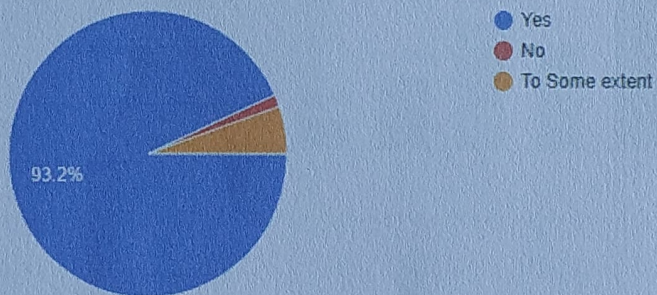
Did the Content of the Lecture highlight the above course theme?

74 responses



Did the Content of the Lecture of above course theme was easy to understand?

74 responses



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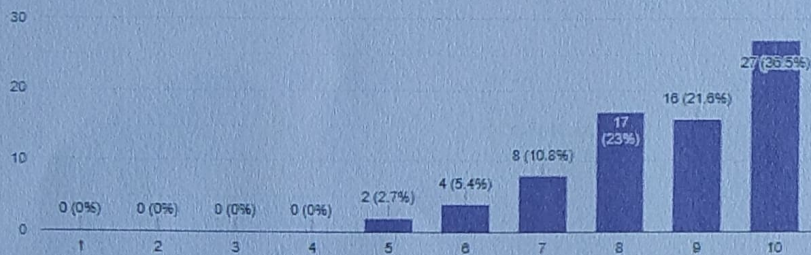
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How effectively was the speaker Dr. Kamlesh Dekate able to communicate their ideas and concepts?

[Copy chart](#)

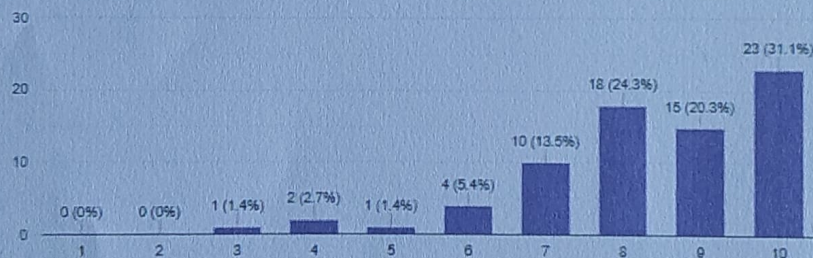
74 responses



How effectively was the speaker Dr. Shraddha Ghaisas able to communicate their ideas and concepts?

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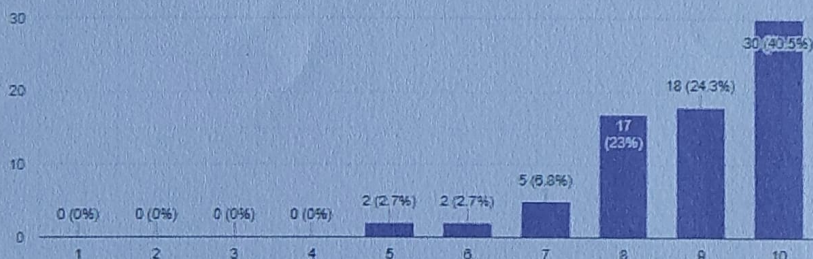
74 responses



How effectively was the speaker Dr. Niharika Swain able to communicate their ideas and concepts?

[Copy chart](#)

74 responses



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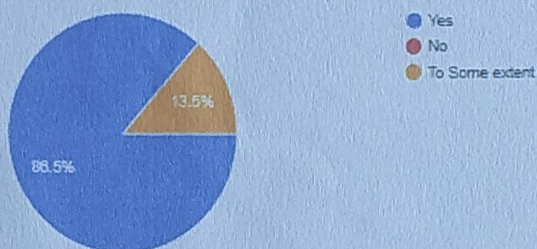
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Do you plan to implement your learning from this course program in your regular study and research work?

[Copy chart](#)

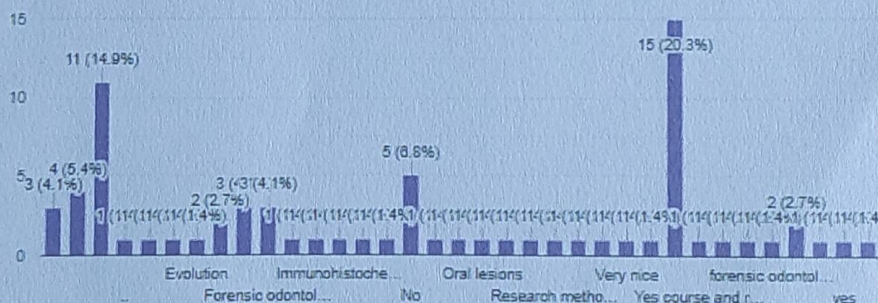
74 responses



Apart from genetics, do you wish to start any other value added course program in your regular study and research work?

[Copy chart](#)

74 responses



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