

ITSPM'S

Arts, Science And Commerce College , Indapur

Department Of Physics

Notice for Student

Date-25/08/2022

All the Student who registered their names to 'Certificate Course in Basic Electronic' are hereby informed that their lectures will be started on Thursday , 02/09/2022 in Room No. 78 at 1 pm to 2 pm. It is compulsory to attend the lectures of value added course for getting desired credit .



HOD

Head
Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune



Principal
PRINCIPAL
ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE



ITSPM'S

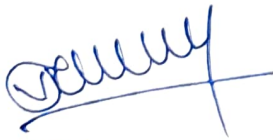
Arts, Science And Commerce College , Indapur

Department Of Physics

Notice for Student

Date-25/08/2022

All the Student who registered their names to 'Certificate Course in Basic Electronic' are hereby informed that their Practical's will be started on Saturday , 03/09/2022 in Room No.59 at 1 pm to 5 pm. It is compulsory to attend the Practical's of value added course for getting desired credit .



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College, Indapur, Dist. Pune



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ITSPM'S

Arts, Science And Commerce College , Indapur

Department Of Physics

Certificate Course in Basic Electronic

2022-23

Timetable

Time	Thursday	Friday	Saturday
1 pm To 2 pm	Theory	Theory	-
1 pm To 5 Pm	-	-	Practical



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Arts, Science And Commerce College, Indapur

Department of Physics

Certificate course in Basic Electronics

List of Registered Students

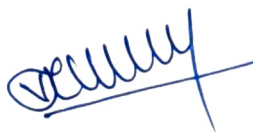
Academic Year 2022-23

Sr.No.	Roll.No	Student Name	Class
1.	3001	BAGAL PRASAD HARIDAS	F.Y.B.Sc.
2.	3003	GALANDE ANJALI BALASAHEB	F.Y.B.Sc.
3.	3004	KHABALE SAKSHI DHANAJI	F.Y.B.Sc.
4.	3006	MANE PRATHAMESH GORAKH	F.Y.B.Sc.
5.	3008	MAKHARE TUSHAR BALASAHEB	F.Y.B.Sc.
6.	3011	SUL SNEHAL SACHIN	F.Y.B.Sc.
7.	3012	MOHITE SHUBHANGI BAPU	F.Y.B.Sc.
8.	3014	LOKARE VISHAL JAYSING	F.Y.B.Sc.
9.	3015	SHENDE GAURI VIJAY	F.Y.B.Sc.
10.	3016	GIRI DNYANESHWARI SHANKAR	F.Y.B.Sc.
11.	3017	BORATE SHRAVANI ANIL	F.Y.B.Sc.
12.	3018	SHAIKH ALISHA ASLAM	F.Y.B.Sc.
13.	3021	DEVKAR SNEHAL RAJENDRA	F.Y.B.Sc.
14.	3022	SARADE SIDDHESHWAR KANTILAL	F.Y.B.Sc.
15.	3023	SHINDE SAKSHI GORAKH	F.Y.B.Sc.
16.	3024	ANARASE POOJA TATYABA	F.Y.B.Sc.
17.	3025	BIBE PRANJALI VITTHAL	F.Y.B.Sc.
18.	3027	BIBE NILAM LAXMAN	F.Y.B.Sc.
19.	3028	JADHAV SAYALI SUBHASH	F.Y.B.Sc.
20.	3029	GHODAKE NIKITA ASHOK	F.Y.B.Sc.
21.	3030	BHONG MAHESH LAXMAN	F.Y.B.Sc.
22.	3031	SALGAR AMBADAS BALU	F.Y.B.Sc.
23.	3032	BORATE VAISHNAVI BAPURAV	F.Y.B.Sc.
24.	3033	NIGADE SHIVANI PANDURANG	F.Y.B.Sc.
25.	3035	SHINDE AJAY PRALHAD	F.Y.B.Sc.
26.	3036	SAYYAD IRSHAD KAYYUM	F.Y.B.Sc.
27.	3037	KADAM SNEHAL VILAS	F.Y.B.Sc.
28.	3038	SHID SHITAL SARJERAO	F.Y.B.Sc.
29.	3039	BABAR PUJA NANDKUMAR	F.Y.B.Sc.
30.	3040	GAWADE NIKITA MOHAN	F.Y.B.Sc.
31.	3041	GHADGE POONAM BHAUSAHEB	F.Y.B.Sc.
32.	3042	MORE OMKAR GURUNATH	F.Y.B.Sc.
33.	3043	DHUKU SUJAL SHAHAJI	F.Y.B.Sc.
34.	3044	KHADE SANKET BAPURAO	F.Y.B.Sc.
35.	3046	LASHKAR SAKSHI SOMNATH	F.Y.B.Sc.
36.	3047	CHAVAN AMRUTA MAHADEO	F.Y.B.Sc.
37.	3048	NANAVARE ROHIT SANTOSH	F.Y.B.Sc.
38.	3049	BHOSALE SHUBHAM DATTATRAY	F.Y.B.Sc.

39.	3050	DEOKAR KIRAN MAHADEV	F.Y.B.Sc.
40.	3051	SURYAWANSHI AKANKSHA SANTOSH	F.Y.B.Sc.
41.	3053	BANSODE SHITAL DATTATRAYA	F.Y.B.Sc.
42.	3054	SHINDE SAKSHI ARVIND	F.Y.B.Sc.
43.	3057	MISAL ANIKET ANIL	F.Y.B.Sc.
44.	3058	MANOJ KUMAR AMAN PRIYANSHU	F.Y.B.Sc.
45.	3059	ANARASE VAISHALI MARUTI	F.Y.B.Sc.
46.	3060	SURYAWANSHI DHANASHRI SUNIL	F.Y.B.Sc.
47.	3061	BHOSALE SHITAL POPAT	F.Y.B.Sc.
48.	3062	BHOSALE NEHA SARJERAO	F.Y.B.Sc.
49.	3064	PISE KIRAN DEVIDAS	F.Y.B.Sc.
50.	3065	LAVATE ANKITA BALASO	F.Y.B.Sc.
51.	3066	SAYYAD KASHISH SALIM	F.Y.B.Sc.
52.	3067	NAWALE ROHAN SANJAY	F.Y.B.Sc.
53.	3069	BANSODE NIKITA PRAKASH	F.Y.B.Sc.
54.	3070	NALAWADE SAYALI VITHAL	F.Y.B.Sc.
55.	3071	NALAWADE JYOTI NAVANATH	F.Y.B.Sc.
56.	3073	SONAVANE PRATIKSHA SUNIL	F.Y.B.Sc.
57.	3074	SALUNKE PRAJAKTA SUNIL	F.Y.B.Sc.
58.	3075	CHOPADE NIKITA SANJAY	F.Y.B.Sc.



Subject Teacher



H.O.D.

Head

Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune



Principal

PRINCIPAL

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COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE**

ITSPM'S**Arts, Science And Commerce College, Indapur****Department of Physics****Certificate course in Basic Electronics****Attendance Sheet****Academic Year 2022-23**

Sr.No.	Roll.No	Student Name	01/09	02/09	08/09	09/09	15/09	16/09
1.	3001	BAGAL PRASAD HARIDAS	P	P	P	P	P	P
2.	3003	GALANDE ANJALI BALASAHEB	P	P	P	P	P	P
3.	3004	KHABALE SAKSHI DHANAJI	P	A	P	P	P	P
4.	3006	MANE PRATHAMESH GORAKH	P	P	P	P	P	P
5.	3008	MAKHARE TUSHAR BALASAHEB	P	P	P	P	P	P
6.	3011	SUL SNEHAL SACHIN	P	P	P	P	A	P
7.	3012	MOHITE SHUBHANGI BAPU	P	P	P	P	P	P
8.	3014	LOKARE VISHAL JAYSING	P	P	P	P	P	P
9.	3015	SHENDE GAURI VIJAY	P	P	P	P	P	P
10.	3016	GIRI DNYANESHWARI SHANKAR	P	P	P	P	P	P
11.	3017	BORATE SHRAVANI ANIL	P	A	P	P	P	P
12.	3018	SHAIKH ALISHA ASLAM	P	P	P	P	P	P
13.	3021	DEVKAR SNEHAL RAJENDRA	P	P	P	P	P	P
14.	3022	SARADE SIDDHESHWAR KANTILAL	P	P	P	P	P	P
15.	3023	SHINDE SAKSHI GORAKH	P	P	P	P	P	P
16.	3024	ANARASE POOJA TATYABA	P	P	A	P	P	P
17.	3025	BIBE PRANJALI VITTHAL	P	P	P	P	P	P
18.	3027	BIBE NILAM LAXMAN	P	P	P	P	P	P
19.	3028	JADHAV SAYALI SUBHASH	P	P	P	P	P	P
20.	3029	GHODAKE NIKITA ASHOK	P	P	P	P	A	P
21.	3030	BHONG MAHESH LAXMAN	P	P	P	P	P	P
22.	3031	SALGAR AMBADAS BALU	P	P	P	P	P	P
23.	3032	BORATE VAISHNAVI BAPURAV	P	P	P	P	P	P
24.	3033	NIGADE SHIVANI PANDURANG	P	P	A	P	P	P
25.	3035	SHINDE AJAY PRALHAD	P	P	P	P	P	P
26.	3036	SAYYAD IRSHAD KAYYUM	P	P	P	P	P	P
27.	3037	KADAM SNEHAL VILAS	P	P	P	P	P	P
28.	3038	SHID SHITAL SARJERAO	P	P	A	P	P	P
29.	3039	BABAR PUJA NANDKUMAR	P	P	P	P	P	P
30.	3040	GAWADE NIKITA MOHAN	P	P	P	A	P	P
31.	3041	GHADGE POONAM BHAUSAHEB	P	P	P	P	P	P
32.	3042	MORE OMKAR GURUNATH	P	A	P	P	P	P
33.	3043	DHUKHE SUJAL SHAHAJI	P	P	P	P	P	P
34.	3044	KHADE SANKET BAPURAO	P	P	P	P	P	P
35.	3046	LASHKAR SAKSHI SOMNATH	P	P	P	P	P	P

36.	3047	CHAVAN AMRUTA MAHADEO	P	P	P	P	P	P
37.	3048	NANAVARE ROHIT SANTOSH	P	A	P	P	P	P
38.	3049	BHOSALE SHUBHAM DATTATRAY	P	P	P	P	P	P
39.	3050	DEOKAR KIRAN MAHADEV	P	P	P	P	P	P
40.	3051	SURYAWANSHI AKANKSHA SANTOSH	P	P	P	A	A	P
41.	3053	BANSODE SHITAL DATTATRAYA	P	P	A	P	P	P
42.	3054	SHINDE SAKSHI ARVIND	P	P	P	P	P	P
43.	3057	MISAL ANIKET ANIL	P	P	P	P	P	P
44.	3058	MANOJ KUMAR AMAN PRIYANSHU	P	P	P	P	P	P
45.	3059	ANARASE VAISHALI MARUTI	P	P	P	P	P	P
46.	3060	SURYAWANSHI DHANASHRI SUNIL	P	A	P	P	P	P
47.	3061	BHOSALE SHITAL POPAT	P	A	P	P	A	P
48.	3062	BHOSALE NEHA SARJERAO	P	P	A	P	P	P
49.	3064	PISE KIRAN DEVIDAS	P	P	P	P	P	P
50.	3065	LAVATE ANKITA BALASO	P	P	P	P	A	P
51.	3066	SAYYAD KASHISH SALIM	P	P	P	P	P	P
52.	3067	NAWALE ROHAN SANJAY	P	P	P	P	P	P
53.	3069	BANSODE NIKITA PRAKASH	P	P	A	P	P	P
54.	3070	NALAWADE SAYALI VITHAL	P	A	P	P	P	P
55.	3071	NALAWADE JYOTI NAVANATH	P	P	P	P	P	P
56.	3073	SONAVANE PRATIKSHA SUNIL	P	P	P	P	P	P
57.	3074	SALUNKE PRAJAKTA SUNIL	P	P	P	A	P	P
58.	3075	CHOPADE NIKITA SANJAY	P	A	P	P	P	P


Subject Teacher


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Sr.No.	Roll.No	Student Name	22/09	23/09	29/09	30/09	06/10	07/10
1.	3001	BAGAL PRASAD HARIDAS	P	P	P	P	P	P
2.	3003	GALANDE ANJALI BALASAHEB	P	P	P	P	P	P
3.	3004	KHABALE SAKSHI DHANAJI	P	A	P	P	P	P
4.	3006	MANE PRATHAMESH GORAKH	P	P	P	P	P	P
5.	3008	MAKHARE TUSHAR BALASAHEB	P	P	P	P	P	P
6.	3011	SUL SNEHAL SACHIN	P	P	P	P	A	P
7.	3012	MOHITE SHUBHANGI BAPU	P	P	P	P	P	P
8.	3014	LOKARE VISHAL JAYSING	P	P	P	P	P	P
9.	3015	SHENDE GAURI VIJAY	P	P	P	P	P	P
10.	3016	GIRI DNYANESHWARI SHANKAR	P	P	P	P	P	P
11.	3017	BORATE SHRAVANI ANIL	P	A	P	P	P	P
12.	3018	SHAIKH ALISHA ASLAM	P	P	P	P	P	P
13.	3021	DEVKAR SNEHAL RAJENDRA	P	P	P	P	P	P
14.	3022	SARADE SIDDHESHWAR KANTILAL	P	P	P	P	P	P
15.	3023	SHINDE SAKSHI GORAKH	P	P	P	P	P	P
16.	3024	ANARASE POOJA TATYABA	P	P	A	P	P	P
17.	3025	BIBE PRANJALI VITTHAL	P	P	P	P	P	P
18.	3027	BIBE NILAM LAXMAN	P	P	P	P	P	P
19.	3028	JADHAV SAYALI SUBHASH	P	P	P	P	P	P
20.	3029	GHODAKE NIKITA ASHOK	P	P	P	P	A	P
21.	3030	BHONG MAHESH LAXMAN	P	P	P	P	P	P
22.	3031	SALGAR AMBADAS BALU	P	P	P	P	P	P
23.	3032	BORATE VAISHNAVI BAPURAV	P	P	P	P	P	P
24.	3033	NIGADE SHIVANI PANDURANG	P	P	A	P	P	P
25.	3035	SHINDE AJAY PRALHAD	P	P	P	P	P	P
26.	3036	SAYYAD IRSHAD KAYYUM	P	P	P	P	P	P
27.	3037	KADAM SNEHAL VILAS	P	P	P	P	P	P
28.	3038	SHID SHITAL SARJERAO	P	P	A	P	P	P
29.	3039	BABAR PUJA NANDKUMAR	P	P	P	P	P	P
30.	3040	GAWADE NIKITA MOHAN	P	P	P	A	P	P
31.	3041	GHADGE POONAM BHAUSAHEB	P	P	P	P	P	P
32.	3042	MORE OMKAR GURUNATH	P	A	P	P	P	P
33.	3043	DHUKHE SUJAL SHAHAJI	P	P	P	P	P	P
34.	3044	KHADE SANKET BAPURAO	P	P	P	P	P	P
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36.	3047	CHAVAN AMRUTA MAHADEO	P	P	P	P	P	P
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42.	3054	SHINDE SAKSHI ARVIND	P	P	P	P	P	P
43.	3057	MISAL ANIKET ANIL	P	P	P	P	P	P
44.	3058	MANOJ KUMAR AMAN PRIYANSHU	P	P	P	P	P	P
45.	3059	ANARASE VAISHALI MARUTI	P	P	P	P	P	P
46.	3060	SURYAWANSHI DHANASHRI SUNIL	P	A	P	P	P	P
47.	3061	BHOSALE SHITAL POPAT	P	A	P	P	A	P
48.	3062	BHOSALE NEHA SARJERAO	P	P	A	P	P	P
49.	3064	PISE KIRAN DEVIDAS	P	P	P	P	P	P
50.	3065	LAVATE ANKITA BALASO	P	P	P	P	A	P
51.	3066	SAYYAD KASHISH SALIM	P	P	P	P	P	P
52.	3067	NAWALE ROHAN SANJAY	P	P	P	P	P	P
53.	3069	BANSODE NIKITA PRAKASH	A	A	P	P	P	P
54.	3070	NALAWADE SAYALI VITHAL	P	P	P	A	P	P
55.	3071	NALAWADE JYOTI NAVANATH	P	P	P	P	P	P
56.	3073	SONAVANE PRATIKSHA SUNIL	A	P	P	P	P	P
57.	3074	SALUNKE PRAJAKTA SUNIL	P	P	A	P	A	P
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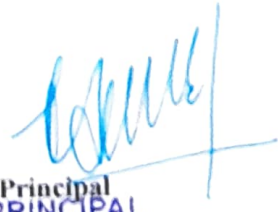
ITSPM'S
Arts, Science And Commerce College, Indapur
Department of Physics
Certificate course in Basic Electronics
Academic Year 2022-23
Practical Attendance

Sr.No.	Roll.No	Student Name	03/09	10/09	14/09	24/09	01/10	08/10	15/10
1.	3001	BAGAL PRASAD HARIDAS	P	P	P	P	P	P	P
2.	3003	GALANDE ANJALI BALASAHEB	P	P	P	P	P	P	P
3.	3004	KHABALE SAKSHI DHANAJI	P	A	P	P	P	P	P
4.	3006	MANE PRATHAMESH GORAKH	P	P	P	P	P	P	P
5.	3008	MAKHARE TUSHAR BALASAHEB	P	P	P	P	P	P	P
6.	3011	SUL SNEHAL SACHIN	P	P	P	P	A	P	P
7.	3012	MOHITE SHUBHANGI BAPU	P	P	P	P	P	P	P
8.	3014	LOKARE VISHAL JAYSING	P	P	P	P	P	P	A
9.	3015	SHENDE GAURI VIJAY	P	P	P	P	P	P	P
10.	3016	GIRI DNYANESHWARI SHANKAR	P	P	P	P	P	P	P
11.	3017	BORATE SHRAVANI ANIL	P	A	P	P	P	P	P
12.	3018	SHAIKH ALISHA ASLAM	P	P	P	P	P	P	P
13.	3021	DEVKAR SNEHAL RAJENDRA	P	P	P	P	P	P	A
14.	3022	SARADE SIDDHESHWAR KANTILAL	P	P	P	P	P	P	P
15.	3023	SHINDE SAKSHI GORAKH	P	P	P	P	P	P	P
16.	3024	ANARASE POOJA TATYABA	P	P	A	P	P	P	P
17.	3025	BIBE PRANJALI VITTHAL	P	P	P	P	P	P	P
18.	3027	BIBE NILAM LAXMAN	P	P	P	P	P	P	P
19.	3028	JADHAV SAYALI SUBHASH	P	P	P	P	P	P	P
20.	3029	GHODAKE NIKITA ASHOK	P	P	P	P	A	P	P
21.	3030	BHONG MAHESH LAXMAN	P	P	P	P	P	P	P
22.	3031	SALGAR AMBADAS BALU	P	P	P	P	P	P	A
23.	3032	BORATE VAISHNAVI BAPURAV	P	P	P	P	P	P	P
24.	3033	NIGADE SHIVANI PANDURANG	P	P	A	P	P	P	P
25.	3035	SHINDE AJAY PRALHAD	P	P	P	P	P	P	P
26.	3036	SAYYAD IRSHAD KAYYUM	P	P	P	P	P	P	P
27.	3037	KADAM SNEHAL VILAS	P	P	P	P	P	P	P
28.	3038	SHID SHITAL SARJERAO	P	P	A	P	P	P	P
29.	3039	BABAR PUJA NANDKUMAR	P	P	P	P	P	P	P
30.	3040	GAWADE NIKITA MOHAN	P	P	P	A	P	P	P
31.	3041	GHADGE POONAM BHAUSAHEB	P	P	P	P	P	P	A
32.	3042	MORE OMKAR GURUNATH	P	A	P	P	P	P	P
33.	3043	DHUKU SUJAL SHAHAJI	P	P	P	P	P	P	P

34.	3044	KHADE SANKET BAPURAO	P	P	P	P	P	P	P
35.	3046	LASHKAR SAKSHI SOMNATH	P	P	P	P	P	P	P
36.	3047	CHAVAN AMRUTA MAHADEO	P	P	P	P	P	P	P
37.	3048	NANAVARE ROHIT SANTOSH	P	A	P	P	P	P	P
38.	3049	BHOSALE SHUBHAM DATTATRAY	P	P	P	P	P	P	A
39.	3050	DEOKAR KIRAN MAHADEV	P	P	P	P	P	P	P
40.	3051	SURYAWANSHI AKANKSHA SANTOSH	P	P	P	A	A	P	P
41.	3053	BANSODE SHITAL DATTATRAYA	P	P	A	P	P	P	P
42.	3054	SHINDE SAKSHI ARVIND	P	P	P	P	P	P	P
43.	3057	MISAL ANIKET ANIL	P	P	P	P	P	P	P
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45.	3059	ANARASE VAISHALI MARUTI	P	P	P	P	P	P	P
46.	3060	SURYAWANSHI DHANASHRI SUNIL	P	A	P	P	P	P	A
47.	3061	BHOSALE SHITAL POPAT	P	A	P	P	A	P	P
48.	3062	BHOSALE NEHA SARJERAO	P	P	A	P	P	P	P
49.	3064	PISE KIRAN DEVIDAS	P	P	P	P	P	P	P
50.	3065	LAVATE ANKITA BALASO	P	P	P	P	A	P	P
51.	3066	SAYYAD KASHISH SALIM	P	P	P	P	P	P	P
52.	3067	NAWALE ROHAN SANJAY	P	A	P	P	P	P	P
53.	3069	BANSODE NIKITA PRAKASH	P	P	P	P	P	P	A
54.	3070	NALAWADE SAYALI VITHAL	P	P	A	P	P	P	P
55.	3071	NALAWADE JYOTI NAVANATH	P	P	P	P	P	P	P
56.	3073	SONAVANE PRATIKSHA SUNIL	P	P	A	P	A	P	P
57.	3074	SALUNKE PRAJAKTA SUNIL	P	A	P	P	P	P	P
58.	3075	CHOPADE NIKITA SANJAY	P	P	P	A	P	P	P


Subject Teacher


H.O.D.
Head
Department of Physics
Arts, Science & Commerce
College, Indapur, Dist Pune


Principal
PRINCIPAL
ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE

Indapur Taluka Shikshan Prasarak Mandal's,
Arts, Science and Commerce College,
Indapur, Dist. Pune

(Affiliated to Savitribai Phule Pune University, Pune)



Organized

Certificate Course on Basic Electronics
(Academic Year 2022-23)

This is to certify that *Bagal Prasad Haridas* a student from F. Y. B.Sc. Class has actively participated and successfully completed Certificate Course on Basic Electronics (4 Credits). This course is organized by Department of Physics, ITSPM's, Arts, Science and Commerce College, Indapur, Dist. Pune from 01.09.2022 to 15.10.2022

Prof. Akin Kamble
Course Coordinator

Prof. Dr. Shivaji Veer
Head Dept. of Physics

Prof. Dr. Shivaji Veer
IQAC Coordinator

Prof. Dr. Jiwan Sarwade
Principal

Arts, science & Commerce College, Indapur

Value added course (2022- 23)

Title - 'Yoga Education'

ITSPM's Arts, Science & Commerce College, Indapur is committed to create an environment where students feel empowered to improve upon their learning behavior for which mere academic inputs is not enough. Going beyond it, they are provided with the training that contributes in their capacity building by motivating them to train their inner self, through emotional management, Self-understanding and positive thinking. Yoga training can help students to strengthen their potentials.

Our Institution conducts a value added course in Yoga programme for students in view with making them conscious of the importance of physical and mental wellbeing.

Course Objective

- Students can acquire knowledge and skills which will help them in developing Physical, Mental, Social and Spiritual health.
- Develop Values that will enhance the personality of the students.
- Develop Emotional Stability.
- The Course enables the future development of the students in order to achieve Occupational Wellness.

- Develop Fitness Conscious Environment in the Campus.

Program Outcomes

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

- PO1 Focus on goals and move away from negativity.
- PO2 Explain dimensions of wellness which helps in pursuing their goals.
- PO3 Demonstrate the practices that can promote wellness.
- PO4 Plan and follow a daily routine that includes Warm-up, Yogasanas, Pranayam and Meditation.
- PO5 Demonstrate behaviours aligned to universal Human Values.
- Before commencing with the yoga training, students will undergo pre-test where their knowledge or awareness about yoga is checked. On the basis of the outcomes of the pre-test, the programme is designed or modified to make it more need based for trainee students.
 - The modified version of the Training package is then implemented. Theory lectures & practical demonstration on yoga will be conducted by Art of Living Faculty Mr. Viresh Holkunde in collaboration with our College Gymkhana Department.

- The content of the course include theory as well as practical demonstrations and practice of different types of pranayama and Yogasans.
- A Complete package of 40 hours training programme (Each session 2 hrs.) in a span of 3 months is designed in collaboration with the well-known ART OF LIVING Yoga Experts with the help of Volunteers.
- It includes understanding of the concept of Yoga, theoretical and scientific basis for the Yogasans and Pranayams.
These sessions will be conducted by the trained yoga teachers.
- Students will be awarded with the course completion certificate endorsed by Yoga Trainers & A.S. C. College, Indapur.

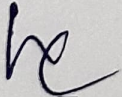
SYLLABUS

Value added course in 'Yoga Education'

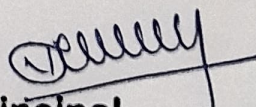
1. Introduction to Yoga.	5 Hrs.
2. Practical demonstration of Pranayama	5 Hrs.
3. Practicing Pranayama	10 Hrs.
4. Practical demonstration of Asanas	5 Hrs.
5. Practicing Asanas	10 Hrs.
6. Meditation	5 Hrs.

Total:

40 Hrs.


Course Teacher

(V.C. Hollkunde)


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COMMERCE COLLEGE
INDAPUR-413108 DIST-PUNE



ITSPM's

Arts, Science And Commerce College , Indapur

STUDENT NOTICE

(Certificate Course in YOGA EDUCATION)

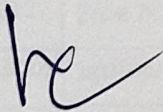
Date- 28/ 08/ 2022

All the Students who have registered their names for 'Certificate Course in YOGA EDUCATION' are hereby informed that, their Yoga Sessions will begin on Thursday, 02 /09 /2022

It is compulsory to attend the sessions of value added course for getting desired credit.

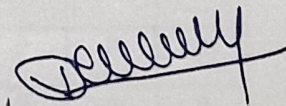
Venue: Room No. 66

Time : 5 to 7 pm



Course In-charge

(V.C. Holkund)


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ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE

Arts, Science & Commerce College, Indapur

Value Added course in YOGA EDUCATION

ATTENDANCE SHEET

Academic Year 2022- 23

(Each Session – 2 Hrs.)

Sr.No.	Roll.No	Student Name	01/09	02/09	08/09	09/09	15/09	16/09
1.	3001	Bagal Prasad Haridas	P	P	P	P	P	P
2.	3003	Galande Anjali Balasaheb	P	P	P	P	P	P
3.	3004	Khabale Sakshi Dhanaji	P	A	P	P	P	P
4.	3006	Mane Prathamesh Gorakh	P	P	P	P	P	P
5.	3008	Makhare Tushar Balasaheb	P	P	P	P	P	P
6.	3011	Sul Snehal Sachin	P	P	P	P	A	P
7.	3012	Mohite Shubhangi Bapu	P	P	P	P	P	P
8.	3014	Lokare Vishal Jaysing	P	P	P	P	P	P
9.	3015	Shende Gauri Vijay	P	P	P	P	P	P
10.	3016	Giri Dnyaneshwari Shankar	P	P	P	P	P	P
11.	3017	Borate Shravani Anil	P	A	P	P	P	P
12.	3018	Shaikh Alisha Aslam	P	P	P	P	P	P
13.	3021	Devkar Snehal Rajendra	P	P	P	P	P	P
14.	3022	Sarade Siddheshwar K	P	P	P	P	P	P
15.	3023	Shinde Sakshi Gorakh	P	P	P	P	P	P
16.	3024	Anarase Pooja Tatyaba	P	P	A	P	P	P
17.	3025	Bibe Pranjali Vitthal	P	P	P	P	P	P
18.	3027	Bibe Nilam Laxman	P	P	P	P	P	P
19.	3028	Jadhav Sayali Subhash	P	P	P	P	P	P
20.	3029	Ghodake Nikita Ashok	P	P	P	P	A	P
21.	3030	Bhong Mahesh Laxman	P	P	P	P	P	P

he
(V.C. Holkund)



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COMMERCE COLLEGE
INDAPUR-413106 DIST.-PUNE

22.	3031	Salgar Ambadas Balu	P	P	P	P	P	P
23.	3032	Borate Vaishnavi Bapurav	P	P	P	P	P	P
24.	3033	Nigade Shivani Pandurang	P	P	A	P	P	P
25.	3035	Shinde Ajay Pralhad	P	P	P	P	P	P
26.	3036	Sayyad Irshad Kayyum	P	P	P	P	P	P
27.	3037	Kadam Snehal Vilas	P	P	P	P	P	P
28.	3038	Shid Shital Sarjerao	P	P	A	P	P	P
29.	3039	Babar Puja Nandkumar	P	P	P	P	P	P
30.	3040	Gawade Nikita Mohan	P	P	P	A	P	P
31.	3041	Ghadge Poonam B	P	P	P	P	P	P
32.	3042	More Omkar Gurunath	P	A	P	P	P	P
33.	3043	Dhuke Sujal Shahaji	P	P	P	P	P	P
34.	3044	Khade Sanket Bapurao	P	P	P	P	P	P
35.	3046	Lashkar Sakshi Somnath	P	P	P	P	P	P
36.	3047	Chavan Amruta Mahadeo	P	P	P	P	P	P
37.	3048	Nanavare Rohit Santosh	P	A	P	P	P	P
38.	3049	Bhosale Shubham Dattatray	P	P	P	P	P	P
39.	3050	Deokar Kiran Mahadev	P	P	P	P	P	P

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SUBJECT TEACHER

(V. C. Holkund))



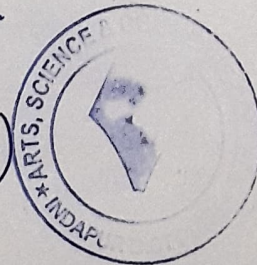
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PRINCIPAL
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ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE

Value Added course in YOGA EDUCATION

Attendance Sheet

Sr.No.	Roll.No	Student Name	22/09	23/09	29/09	30/09	06/10	07/10
1.	3001	Bagal Prasad Haridas	P	P	P	P	P	P
2.	3003	Galande Anjali Balasaheb	P	P	P	P	P	P
3.	3004	Khabale Sakshi Dhanaji	P	A	P	P	P	P
4.	3006	Mane Prathamesh Gorakh	P	P	P	P	P	P
5.	3008	Makhare Tushar Balasaheb	P	P	P	P	P	P
6.	3011	Sul Snehal Sachin	P	P	P	P	A	P
7.	3012	Mohite Shubhangi Bapu	P	P	P	P	P	P
8.	3014	Lokare Vishal Jaysing	P	P	P	P	P	P
9.	3015	Shende Gauri Vijay	P	P	P	P	P	P
10.	3016	Giri Dnyaneshwari Shankar	P	P	P	P	P	P
11.	3017	Borate Shravani Anil	P	A	P	P	P	P
12.	3018	Shaikh Alisha Aslam	P	P	P	P	P	P
13.	3021	Devkar Snehal Rajendra	P	P	P	P	P	P
14.	3022	Sarade Siddheshwar K	P	P	P	P	P	P
15.	3023	Shinde Sakshi Gorakh	P	P	P	P	P	P
16.	3024	Anarase Pooja Tatyaba	P	P	A	P	P	P
17.	3025	Bibe Pranjali Vitthal	P	P	P	P	P	P
18.	3027	Bibe Nilam Laxman	P	P	P	P	P	P
19.	3028	Jadhav Sayali Subhash	P	P	P	P	P	P
20.	3029	Ghodake Nikita Ashok	P	P	P	P	A	P
21.	3030	Bhong Mahesh Laxman	P	P	P	P	P	P
22.	3031	Salgar Ambadas Balu	P	P	P	P	P	P

he
(V. C. Hollkunde)



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ARTS, SCIENCE AND
COMMERCE COLLEGE
"INDAPUR-413106 DIST. PUNE"

23.	3032	Borate Vaishnavi Bapurav	P	P	P	P	P	P
24.	3033	Nigade Shivani Pandurang	P	P	A	P	P	P
25.	3035	Shinde Ajay Pralhad	P	P	P	P	P	P
26.	3036	Sayyad Irshad Kayyum	P	P	P	P	P	P
27.	3037	Kadam Snehal Vilas	P	P	P	P	P	P
28.	3038	Shid Shital Sarjerao	P	P	A	P	P	P
29.	3039	Babar Puja Nandkumar	P	P	P	P	P	P
30.	3040	Gawade Nikita Mohan	P	P	P	A	P	P
31.	3041	Ghadge Poonam B	P	P	P	P	P	P
32.	3042	More Omkar Gurunath	P	A	P	P	P	P
33.	3043	Dhuke Sujal Shahaji	P	P	P	P	P	P
34.	3044	Khade Sanket Bapurao	P	P	P	P	P	P
35.	3046	Lashkar Sakshi Somnath	P	P	P	P	P	P
36.	3047	Chavan Amruta Mahadeo	P	P	P	P	P	P
37.	3048	Nanavare Rohit Santosh	P	A	P	P	P	P
38.	3049	Bhosale Shubham Dattatray	P	P	P	P	P	P
39.	3050	Deokar Kiran Mahadev	P	P	P	P	P	P

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Subject Teacher

(V.C. Holikunde)

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Principal
PRINCIPAL
ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE



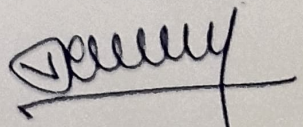
Value Added course in YOGA EDUCATION

Academic Year 2022-23

Sr.No.	Roll.No	Student Name	08/10	09/10	10/10	11/10	12/10	13/10	15/10
1.	3001	Bagal Prasad Haridas	P	P	P	P	P	P	P
2.	3003	Galande Anjali B	P	P	P	P	P	P	P
3.	3004	Khabale Sakshi D	P	A	P	P	P	P	P
4.	3006	Mane Prathamesh G	P	P	P	P	P	P	P
5.	3008	Makhare Tushar B	P	P	P	P	P	P	P
6.	3011	Sul Snehal Sachin	P	P	P	P	A	P	P
7.	3012	Mohite Shubhangi B	P	P	P	P	P	P	P
8.	3014	Lokare Vishal Jaysing	P	P	P	P	P	P	A
9.	3015	Shende Gauri Vijay	P	P	P	P	P	P	P
10.	3016	Giri Dnyaneshwari S	P	P	P	P	P	P	P
11.	3017	Borate Shravani Anil	P	A	P	P	P	P	P
12.	3018	Shaikh Alisha Aslam	P	P	P	P	P	P	P
13.	3021	Devkar Snehal R	P	P	P	P	P	P	A
14.	3022	Sarade Siddheshwar K	P	P	P	P	P	P	P
15.	3023	Shinde Sakshi Gorakh	P	P	P	P	P	P	P
16.	3024	Anarase Pooja T	P	P	A	P	P	P	P
17.	3025	Bibe Pranjali Vitthal	P	P	P	P	P	P	P
18.	3027	Bibe Nilam Laxman	P	P	P	P	P	P	P
19.	3028	Jadhav Sayali Subhash	P	P	P	P	P	P	P
20.	3029	Ghodake Nikita Ashok	P	P	P	P	A	P	P
21.	3030	Bhong Mahesh L	P	P	P	P	P	P	P
22.	3031	Salgar Ambadas Balu	P	P	P	P	P	P	A

he
(V.C. Holkundale)




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ARTS, SCIENCE AND
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23.	3032	Borate Vaishnavi B	P	P	P	P	P	P	P
24.	3033	Nigade Shivani P	P	P	A	P	P	P	P
25.	3035	Shinde Ajay Pralhad	P	P	P	P	P	P	P
26.	3036	Sayyad Irshad Kayyum	P	P	P	P	P	P	P
27.	3037	Kadam Snehal Vilas	P	P	P	P	P	P	P
28.	3038	Shid Shital Sarjerao	P	P	A	P	P	P	P
29.	3039	Babar Puja N	P	P	P	P	P	P	P
30.	3040	Gawade Nikita Mohan	P	P	P	A	P	P	P
31.	3041	Ghadge Poonam B	P	P	P	P	P	P	A
32.	3042	More Omkar G	P	A	P	P	P	P	P
33.	3043	Dhuke Sujal Shahaji	P	P	P	P	P	P	P
34.	3044	Khade Sanket Bapurao	P	P	P	P	P	P	P
35.	3046	Lashkar Sakshi S	P	P	P	P	P	P	P
36.	3047	Chavan Amruta M	P	P	P	P	P	P	P
37.	3048	Nanavare Rohit S	P	A	P	P	P	P	P
38.	3049	Bhosale Shubham D	P	P	P	P	P	P	A
39.	3050	Deokar Kiran M	P	P	P	P	P	P	P

SUBJECT TEACHER

(V.C. Holkund) .

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I.T.S.P.M.'s,

Arts, Science and Commerce College, Indapur

(Affiliated to Savitribai Phule Pune University, Pune)



Organized

Value Added Course in YOGA EDUCATION

(Academic Year 2022 – 2023)

This is to certify that **Miss. Anarase Pooja T.** from **F. Y. B.Sc.** Class has actively participated and successfully completed **Value Added Course in YOGA EDUCATION (4 Credits)**.

This course is approved by Savitribai Phule Pune University, Pune & organized by ITSPM's, Arts, Science & Commerce College, Indapur, Dist. Pune from **01/09/2022 to 15/10/2022** .

Prof. Viresh Holkunde
Course Co-ordinator

Principal
PRINCIPAL

**ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE**

ITSPM'S

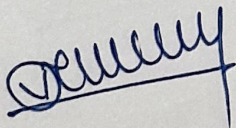
Arts, Science And Commerce College, Indapur

Department Of Physics

Notice for Student

Date-24/02/2023

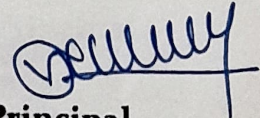
All the Student who registered their names to 'Certificate Course in Electric & Electronic instruments' are hereby informed that their lectures will be started on Thursday , 02/03/2023 in Room No. 78 at 1 pm to 2 pm. It is compulsory to attend the lectures of value added course for getting desired credit .



HOD

Head

Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune



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INDAPUR-413106 DIST-PUNE**



ITSPM'S

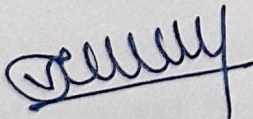
Arts, Science And Commerce College , Indapur

Department Of Physics

Notice for Student

Date-24/02/2023

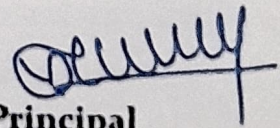
All the Student who registered their names to 'Certificate Course in Electric & Electronic instruments' are hereby informed that their Practical's will be started on Saturday , 04/03/2023 in Room No.59 at 1 pm to 5 pm. It is compulsory to attend the Practical's of value added course for getting desired credit .



HOD

Head

Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune



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Indapur Taluka Shikshan Prasarak Mandals
Arts, Science and Commerce College Indapur Dist. Pune
Department of Physics
Certificate Course in Electric and Electronic Instruments
Syllabus
From Academic Year 2022-23

Objectives of Certificate Course

1. The student should know the Instruments
2. The student should know the applications of instruments

Certificate Course Outcomes

1. Understand the concept of measurements
2. Know the different units
3. Classification of instruments
4. Applications of instruments
5. Use of instruments in day today life

Module 1. Introduction :

10 L

Measurements, fundamental and derived units, standards and their classifications, International standards, Primary standards, Secondary standards, Working standards, Current standards, Voltage standards, Resistance standards, Capacitance standards, Time and frequency standards, Methods of measurements, Direct comparison methods, Indirect comparison methods.

Module 2. Classifications of Instruments :

10 L

Absolute and Secondary Instruments, Analog and Digital Instruments, Mechanical, Electrical and Electronics Instruments,

Module 3. Electrical Instruments:

10 L

Working Principle, Block Diagram, Applications of following instruments. Fan, Transformer, CRO, Refrigerator, Air Conditioner, Signal Generator.

Module 4. Electronic Instruments:

10 L

Working Principle, Block Diagram, Applications of following instruments. Radio, Mobile, Digital Watch, Digital Board.

References:

1 Electrical And Electronic Measurements And Instrumentation, R. K Rajput, S Chand

2 Basic Electronics, by Theraja, S. Chand



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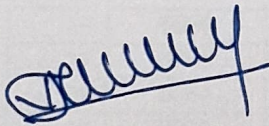
Department Of Physics

Certificate Course in Electric & Electronic Instruments

2022-23

Timetable

Time	Thursday	Friday	Saturday
1 pm To 2 pm	Theory	Theory	-
1 pm To 5 Pm	-	-	Practical

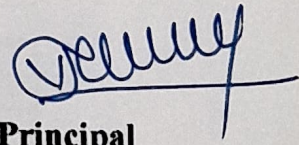


HOD

Head

Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune





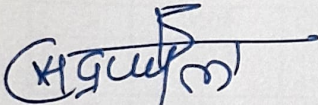
Principal
PRINCIPAL

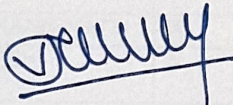
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COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE

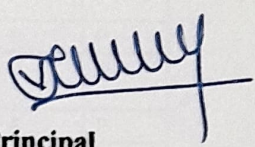
ITSPM'S
Arts, Science And Commerce College, Indapur
Department of Physics
Certificate course in Electric & Electronic Instruments
List of Registered Students
Academic Year 2022-23

Sr.No.	Roll.No.	Student Name	Class
1.	8001	JAGTAP VRUSHALI SHANKAR	S.Y.B.Sc.
2.	8004	SARADE ARCHANA HANUMANT	S.Y.B.Sc.
3.	8006	SURWASE VISHWATEJ MAHADEV	S.Y.B.Sc.
4.	8008	KARE SURAKSHA PARASHURAM	S.Y.B.Sc.
5.	8009	GUTAL PRADNYA KANIFNATH	S.Y.B.Sc.
6.	8013	WAGHMODE GANESH ANKUSH	S.Y.B.Sc.
7.	8014	WAGHMODE SUDIP MAHADEV	S.Y.B.Sc.
8.	8015	PATIL DIPALI NAGNATH	S.Y.B.Sc.
9.	8018	JAGTAP ARATI ARJUN	S.Y.B.Sc.
10.	8019	BALE VINAYAJYOTHI KIRANKUMAR	S.Y.B.Sc.
11.	8021	BALE ANUSHA KIRANKUMAR	S.Y.B.Sc.
12.	8022	PAWAR KALYANI ASHOK	S.Y.B.Sc.
13.	8029	JAGTAP SNEHAL LALASAHEB	S.Y.B.Sc.
14.	8030	DOLAS JAYASHRI SIDDHESHWAR	S.Y.B.Sc.
15.	8031	BANSODE PRIYA ANNASAHEB	S.Y.B.Sc.
16.	8033	GANDHALE NIKITA JYOTIRAM	S.Y.B.Sc.
17.	8035	BHONG GANESH BALU	S.Y.B.Sc.
18.	8036	NALAWADE KULDIP VINOD	S.Y.B.Sc.
19.	8038	BHOSALE MADHURI NAVNATH	S.Y.B.Sc.
20.	8039	PAWAR AMIT SANJAY	S.Y.B.Sc.
21.	8040	BHUJBAL ATISH ATUL	S.Y.B.Sc.
22.	8049	GHADAGE VIDYA HANUMANT	S.Y.B.Sc.
23.	8050	SHAIKH ALFIYA ASLAM	S.Y.B.Sc.
24.	8051	YADAV ONKAR BHAUSAHEB	S.Y.B.Sc.
25.	8055	PATHAN ARBAJ AYUB	S.Y.B.Sc.
26.	8060	KADAM MAHADEV KALYAN	S.Y.B.Sc.
27.	8062	RASAL SANTOSH BHIMRAO	S.Y.B.Sc.
28.	8064	PATIL AHILYA DURYODHAN	S.Y.B.Sc.
29.	8066	THORAT SAKSHI DADA	S.Y.B.Sc.
30.	8068	DHERE SAMADHAN AJINATH	S.Y.B.Sc.
31.	8074	KUMBHAR RUSHIKESH PANDURANG	S.Y.B.Sc.
32.	8077	MANE SIDDHNATH RAJENDRA	S.Y.B.Sc.
33.	8078	LONDHE PRATHMESH SIDDHESHWAR	S.Y.B.Sc.
34.	8081	LONDHE SAMADHAN BHIMRAO	S.Y.B.Sc.
35.	8090	BALVANTRAO PRANIL RAJENDRA	S.Y.B.Sc.

36.	8097	BABAR ADITYA DATTATRAY	S.Y.B.Sc.
37.	8184	WAGHMODE AKSHAY VISHNU	S.Y.B.Sc.
38.	8189	KALEL POOJA TANAJI	S.Y.B.Sc.
39.	8200	MULANI SHANNU KASIM	S.Y.B.Sc.
40.	9025	CHAPHAKANADE NIKITA VISHWANATH	T.Y.B.Sc.
41.	9032	PRAJAKTA KALIDAS MARKAD	T.Y.B.Sc.
42.	9039	VAJALE PRATIKSHA BANDU	T.Y.B.Sc.
43.	9049	SHAIKH SAJIYA MUBIN	T.Y.B.Sc.
44.	9057	KANCHE POOJA BAPU	T.Y.B.Sc.
45.	9224	RAUT VIDHYA SURESH	T.Y.B.Sc.


Subject Teacher


H.O.D
Head
Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune


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INDAPUR-413106 DIST-PUNE



ITSPM'S
Arts, Science And Commerce College, Indapur
Department of Physics
Certificate course in Electric & Electronic Instruments
Attendance Sheet
Academic Year 2022-23

Sr.No.	Roll.No.	Student Name	02/03	03/03	09/03	10/03	16/03	17/03
1.	8001	JAGTAP VRUSHALI SHANKAR	P	P	P	P	P	P
2.	8004	SARADE ARCHANA HANUMANT	P	P	P	P	P	P*
3.	8006	SURWASE VISHWATEJ MAHADEV	P	P	P	P	P	P
4.	8008	KARE SURAKSHA PARASHURAM	P	P	P	P	P	P
5.	8009	GUTAL PRADNYA KANIFNATH	P	P	P	P	P	P
6.	8013	WAGHMODE GANESH ANKUSH	P	P	A	P	P	P
7.	8014	WAGHMODE SUDIP MAHADEV	P	P	P	P	P	P
8.	8015	PATIL DIPALI NAGNATH	P	P	A	P	P	P
9.	8018	JAGTAP ARATI ARJUN	P	P	P	P	P	P
10.	8019	BALE VINAYAJYOTHI KIRANKUMAR	P	P	A	P	P	P
11.	8021	BALE ANUSHA KIRANKUMAR	P	P	P	A	P	P
12.	8022	PAWAR KALYANI ASHOK	P	P	P	P	P	P
13.	8029	JAGTAP SNEHAL LALASAHEB	P	P	P	P	P	P
14.	8030	DOLAS JAYASHRI SIDDHESHWAR	P	P	P	A	P	P
15.	8031	BANSODE PRIYA ANNASAHEB	P	P	P	P	P	P
16.	8033	GANDHALE NIKITA JYOTIRAM	P	P	P	P	A	P
17.	8035	BHONG GANESH BALU	P	P	P	P	P	P
18.	8036	NALAWADE KULDIP VINOD	P	P	A	P	P	P
19.	8038	BHOSALE MADHURI NAVNATH	P	P	P	P	P	P
20.	8039	PAWAR AMIT SANJAY	P	P	P	P	P	P
21.	8040	BHUJBAL ATISH ATUL	P	P	A	P	P	P
22.	8049	GHADAGE VIDYA HANUMANT	P	P	P	P	P	P
23.	8050	SHAIKH ALFIYA ASLAM	P	P	P	A	P	P
24.	8051	YADAV ONKAR BHAUSAHEB	P	P	P	P	A	P
25.	8055	PATHAN ARBAJ AYUB	P	A	P	P	P	P
26.	8060	KADAM MAHADEV KALYAN	P	P	A	P	A	P
27.	8062	RASAL SANTOSH BHIMRAO	P	P	P	P	P	P
28.	8064	PATIL AHILYA DURYODHAN	P	P	P	P	P	P
29.	8066	THORAT SAKSHI DADA	P	P	P	P	P	P
30.	8068	DHERE SAMADHAN AJINATH	P	P	A	P	P	P
31.	8074	KUMBHAR RUSHIKESH PANDURANG	P	P	P	P	P	P
32.	8077	MANE SIDDHNATH RAJENDRA	P	P	P	P	P	P
33.	8078	LONDHE PRATHMESH SIDDHESHWAR	P	P	P	A	P	P

34.	8081	LONDHE SAMADHAN BHIMRAO	P	P	P	P	P	P
35.	8090	BALVANTRAO PRANIL RAJENDRA	P	P	A	P	P	P
36.	8097	BABAR ADITYA DATTATRAY	P	P	P	P	P	A
37.	8184	WAGHMODE AKSHAY VISHNU	P	P	P	P	P	P
38.	8189	KALEL POOJA TANAJI	P	P	P	P	P	P
39.	8200	MULANI SHANNU KASIM	P	P	P	P	P	P
40.	9025	CHAPHAKANADE NIKITA VISHWANATH	P	A	P	P	P	P
41.	9032	PRAJAKTA KALIDAS MARKAD	P	P	P	P	P	P
42.	9039	VAJALE PRATIKSHA BANDU	P	P	P	P	P	P
43.	9049	SHAIKH SAJIYA MUBIN	P	P	A	P	P	A
44.	9057	KANCHE POOJA BAPU	P	P	P	P	P	P
45.	9224	RAUT VIDHYA SURESH	P	A	P	P	P	P

(Signature)

Subject Teacher

(Signature)

H.O.D

Head
Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune

(Signature)

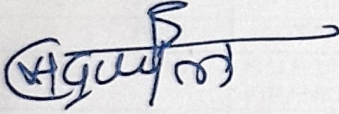
Principal
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INDAPUR-413105 DIST-PUNE



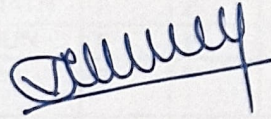
ITSPM'S
Arts, Science And Commerce College, Indapur
Department of Physics
Certificate course in Electric & Electronic Instruments
Attendance Sheet
Academic Year 2022-23

Sr.No.	Roll.No.	Student Name	24/03	31/03	01/04	06/04	13/04	20/04
1.	8001	JAGTAP VRUSHALI SHANKAR	P	P	P	P	P	P
2.	8004	SARADE ARCHANA HANUMANT	P	P	P	P	P	P
3.	8006	SURWASE VISHWATEJ MAHADEV	P	P	P	P	P	P
4.	8008	KARE SURAKSHA PARASHURAM	P	P	P	P	P	P
5.	8009	GUTAL PRADNYA KANIFNATH	P	P	P	P	P	P
6.	8013	WAGHMODE GANESH ANKUSH	P	P	A	P	P	P
7.	8014	WAGHMODE SUDIP MAHADEV	P	P	P	P	P	P
8.	8015	PATIL DIPALI NAGNATH	P	P	A	P	P	P
9.	8018	JAGTAP ARATI ARJUN	P	P	P	P	P	P
10.	8019	BALE VINAYAJYOTHI KIRANKUMAR	P	P	A	P	P	P
11.	8021	BALE ANUSHA KIRANKUMAR	P	P	P	A	P	P
12.	8022	PAWAR KALYANI ASHOK	P	P	P	P	P	P
13.	8029	JAGTAP SNEHAL LALASAHEB	P	P	P	P	P	P
14.	8030	DOLAS JAYASHRI SIDDHESHWAR	P	P	P	A	P	P
15.	8031	BANSODE PRIYA ANNASAHEB	P	P	P	P	P	P
16.	8033	GANDHALE NIKITA JYOTIRAM	P	P	P	P	A	P
17.	8035	BHONG GANESH BALU	P	P	P	P	P	P
18.	8036	NALAWADE KULDIP VINOD	P	P	A	P	P	P
19.	8038	BHOSALE MADHURI NAVNATH	P	P	P	P	P	P
20.	8039	PAWAR AMIT SANJAY	P	P	P	P	P	P
21.	8040	BHUJBAL ATISH ATUL	P	P	A	P	P	P
22.	8049	GHADAGE VIDYA HANUMANT	P	P	P	P	P	P
23.	8050	SHAIKH ALFIYA ASLAM	P	P	P	A	P	P
24.	8051	YADAV ONKAR BHAUSAHEB	P	P	P	P	A	P
25.	8055	PATHAN ARBAJ AYUB	P	A	P	P	P	P
26.	8060	KADAM MAHADEV KALYAN	P	P	A	P	A	P
27.	8062	RASAL SANTOSH BHIMRAO	P	P	P	P	P	P
28.	8064	PATIL AHILYA DURYODHAN	P	P	P	P	P	P
29.	8066	THORAT SAKSHI DADA	P	P	P	P	P	P
30.	8068	DHERE SAMADHAN AJINATH	P	P	A	P	P	P
31.	8074	KUMBHAR RUSHIKESH PANDURANG	P	P	P	P	P	P
32.	8077	MANE SIDDHNATH RAJENDRA	P	P	P	P	P	P
33.	8078	LONDHE PRATHMESH SIDDHESHWAR	P	P	P	A	P	P

34.	8081	LONDHE SAMADHAN BHIMRAO	P	P	P	P	P	P
35.	8090	BALVANTRAO PRANIL RAJENDRA	P	P	A	P	P	P
36.	8097	BABAR ADITYA DATTATRAY	P	P	P	P	P	A
37.	8184	WAGHMODE AKSHAY VISHNU	P	P	P	P	P	P
38.	8189	KALEL POOJA TANAJI	P	P	P	P	P	P
39.	8200	MULANI SHANNU KASIM	P	P	P	P	P	P
40.	9025	CHAPHAKANADE NIKITA VISHWANATH	P	A	P	P	P	P
41.	9032	PRAJAKTA KALIDAS MARKAD	P	P	P	P	P	P
42.	9039	VAJALE PRATIKSHA BANDU	P	P	P	P	P	P
43.	9049	SHAIKH SAJIYA MUBIN	P	P	A	P	P	A
44.	9057	KANCHE POOJA BAPU	P	P	P	P	P	P
45.	9224	RAUT VIDHYA SURESH	P	A	P	P	P	P



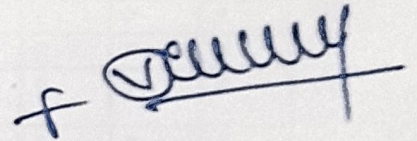
Subject Teacher



H.O.D

Head

Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune



Principal

PRINCIPAL

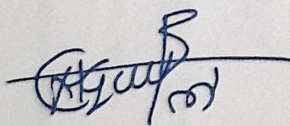
ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-413105 DIST. PUNE



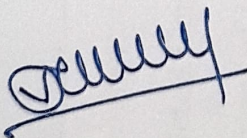
ITSPM'S
Arts, Science And Commerce College, Indapur
Department of Physics
Certificate course in Electric & Electronic Instruments
Academic Year 2022-23
Practical Attendance

Sr.No.	Roll.No.	Student Name	04/03	11/03	18/03	25/03	08/04	15/04	21/04
1.	8001	JAGTAP VRUSHALI SHANKAR	P	P	P	P	P	P	P
2.	8004	SARADE ARCHANA HANUMANT	P	P	P	P	P	P	A
3.	8006	SURWASE VISHWATEJ MAHADEV	P	P	P	P	P	P	P
4.	8008	KARE SURAKSHA PARASHURAM	P	P	P	P	P	P	P
5.	8009	GUTAL PRADNYA KANIFNATH	P	P	P	P	P	P	P
6.	8013	WAGHMODE GANESH ANKUSH	P	P	A	P	A	P	P
7.	8014	WAGHMODE SUDIP MAHADEV	P	P	P	P	P	P	A
8.	8015	PATIL DIPALI NAGNATH	P	P	A	P	P	P	P
9.	8018	JAGTAP ARATI ARJUN	P	P	P	P	P	P	P
10.	8019	BALE VINAYAJYOTHI KIRANKUMAR	P	P	A	P	P	P	P
11.	8021	BALE ANUSHA KIRANKUMAR	P	P	P	A	P	P	P
12.	8022	PAWAR KALYANI ASHOK	P	P	P	P	P	P	P
13.	8029	JAGTAP SNEHAL LALASAHEB	P	P	P	P	P	P	P
14.	8030	DOLAS JAYASHRI SIDDHESHWAR	P	P	P	A	P	P	P
15.	8031	BANSODE PRIYA ANNSAHEB	P	P	P	P	P	P	A
16.	8033	GANDHALE NIKITA JYOTIRAM	P	P	P	P	A	P	P
17.	8035	BHONG GANESH BALU	P	P	P	P	P	P	P
18.	8036	NALAWADE KULDIP VINOD	P	P	A	P	P	P	P
19.	8038	BHOSALE MADHURI NAVNATH	P	P	P	P	P	P	P
20.	8039	PAWAR AMIT SANJAY	P	P	P	P	P	P	A
21.	8040	BHUJBAL ATISH ATUL	P	P	A	P	P	P	P
22.	8049	GHADAGE VIDYA HANUMANT	P	P	P	P	P	P	P
23.	8050	SHAIKH ALFIYA ASLAM	P	P	P	A	P	P	P
24.	8051	YADAV ONKAR BHAUSAHEB	P	P	P	P	A	P	P
25.	8055	PATHAN ARBAJ AYUB	P	A	P	P	P	P	P
26.	8060	KADAM MAHADEV KALYAN	P	P	A	P	A	P	P

27.	8062	RASAL SANTOSH BHIMRAO	P	P	P	P	P	P	P
28.	8064	PATIL AHILYA DURYODHAN	P	P	P	P	P	P	P
29.	8066	THORAT SAKSHI DADA	P	P	P	P	P	P	A
30.	8068	DHERE SAMADHAN AJINATH	P	P	A	P	P	P	P
31.	8074	KUMBHAR RUSHIKESH PANDURANG	P	P	P	P	P	P	P
32.	8077	MANE SIDDHNATH RAJENDRA	P	P	P	P	P	P	P
33.	8078	LONDHE PRATHMESH SIDDHESHWAR	P	P	P	A	P	P	A
34.	8081	LONDHE SAMADHAN BHIMRAO	P	P	P	P	P	P	P
35.	8090	BALVANTRAO PRANIL RAJENDRA	P	P	A	P	P	P	P
36.	8097	BABAR ADITYA DATTATRAY	P	P	P	P	P	A	P
37.	8184	WAGHMODE AKSHAY VISHNU	P	P	P	P	P	P	P
38.	8189	KALEL POOJA TANAJI	P	P	P	P	P	P	P
39.	8200	MULANI SHANNU KASIM	P	P	P	P	P	P	A
40.	9025	CHAPHAKANADE NIKITA VISHWANATH	P	A	P	P	P	P	P
41.	9032	PRAJAKTA KALIDAS MARKAD	P	P	P	P	P	P	P
42.	9039	VAJALE PRATIKSHA BANDU	P	P	P	P	P	P	P
43.	9049	SHAIKH SAJIYA MUBIN	P	P	A	P	P	A	P
44.	9057	KANCHE POOJA BAPU	P	P	P	P	P	P	P
45.	9224	RAUT VIDHYA SURESH	P	A	P	P	P	P	P



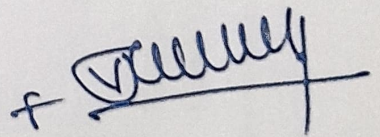
Subject Teacher



H.O.D

Head
Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune





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INDAPUR-413108 DIST-PUNE

Indapur Taluka Shikshan Prasarak Mandal's,
Arts, Science and Commerce College,
Indapur, Dist. Pune

(Affiliated to Savitribai Phule Pune University, Pune)



Organized

Certificate Course on Electric & Electronic Instruments
(Academic Year 2022-23)

This is to certify that *Waghmode Ganesh Ankush* a student from S. Y. B.Sc. Class has actively participated and successfully completed Certificate Course on Electric & Electronic Instruments (4 Credits). This course is organized by Department of Physics, ITSPM's, Arts, Science and Commerce College, Indapur, Dist. Pune from 02.02.2023 to 21.04.2023

Prof. Saddam Patel
Course Coordinator

Prof. Dr. Shivaji Veer
Head Dept. of Physics

Prof. Dr. Shivaji Veer
IQAC Co-ordinator

Prof. Dr. Jiwan Sarwade
Principal

**Indapur Taluka Shikshan Prasarak Mandal's
Arts, Science and Commerce College Indapur Dist. Pune
Department of Physics
Certificate Course in Essential Electronics
Syllabus
From Academic Year 2022-23**

40L

Course Objective

- To make Students learn concepts of Electronics.
- To provide sufficient fundamental knowledge to pursue advanced topic.

Course outcome: After successful completion of course, student will be able to analyze and design electronic circuit.

Unit 1 : Introduction to passive components	10L
--	------------

Resistors- colour code, classification, series and parallel combination.

Capacitor- Classification, colour code, number code, series and parallel combination.

Inductors- Classification, colour code, series and parallel combination. Circuit based on RLC- construction

2.Introduction to Semiconductor devices	10L
--	------------

- **Semiconductor devices:** The basics of semiconductors, diode and transistor characteristics, and different types of diodes and transistors

Integrated circuits: The basics of integrated circuits, including bipolar, MOS, and CMOS ICs

3. Electronic Devices

10L

Operational amplifiers: The basics of operational amplifiers and their applications

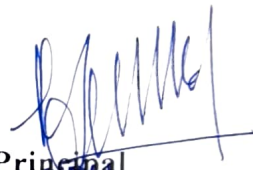
4 Home Appliances

10L

Construction & Working of Radio, Fan, Air conditioner & refrigerator



Course Coordinator



Principal
ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE



ITSPM'S

Arts, Science And Commerce College , Indapur

Department Of Physics

Notice for Student

Date-26/06/2022

All the Student who registered their names to 'Certificate Course in Essential Electronic' are hereby informed that their lectures will be started on Thursday ,01/07/2022 in Room No. 78 at 1 pm to 2 pm. It is compulsory to attend the lectures of value added course for getting desired credit .



HOD

Head

Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune

Principal

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INDAPUR-413100 DIST-PUNE

ITSPM'S

Arts, Science And Commerce College , Indapur

Department Of Physics

Notice for Student

Date- 26/06/2022

All the Student who registered their names to 'Certificate Course in Essential Electronic' are hereby informed that their Practical's will be started on Saturday , 07/07/2022 in Room No.59 at 1 pm to 5 pm. It is compulsory to attend the Practical's of value added course for getting desired credit .



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Head

Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune

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ITSPM'S

Arts, Science And Commerce College , Indapur

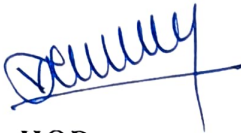
Department Of Physics

Certificate Course in Essential Electronic

2022-23

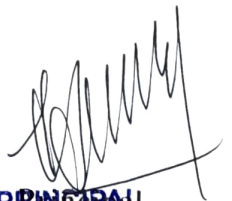
Timetable

Time	Thursday	Friday	Saturday
1 pm To 2 pm	Theory	Theory	-
1 pm To 5 Pm	-	-	Practical



HOD
Head

Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune



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ITSPM'S

Arts, Science And Commerce College, Indapur

Department of Physics

Certificate course in Essential Electronics

List of Registered Students

Academic Year 2022-23

Sr.No.	Roll.No	Student Name	Class
1.	3001	BAGAL PRASAD HARIDAS	F.Y.B.Sc.
2.	3003	GALANDE ANJALI BALASAHEB	F.Y.B.Sc.
3.	3004	KHABALE SAKSHI DHANAJI	F.Y.B.Sc.
4.	3006	MANE PRATHAMESH GORAKH	F.Y.B.Sc.
5.	3008	MAKHARE TUSHAR BALASAHEB	F.Y.B.Sc.
6.	3011	SUL SNEHAL SACHIN	F.Y.B.Sc.
7.	3012	MOHITE SHUBHANGI BAPU	F.Y.B.Sc.
8.	3014	LOKARE VISHAL JAYSING	F.Y.B.Sc.
9.	3015	SHENDE GAURI VIJAY	F.Y.B.Sc.
10.	3016	GIRI DNYANESHWARI SHANKAR	F.Y.B.Sc.
11.	3017	BORATE SHRAVANI ANIL	F.Y.B.Sc.
12.	3018	SHAIKH ALISHA ASLAM	F.Y.B.Sc.
13.	3021	DEVKAR SNEHAL RAJENDRA	F.Y.B.Sc.
14.	3022	SARADE SIDDHESHWAR KANTILAL	F.Y.B.Sc.
15.	3023	SHINDE SAKSHI GORAKH	F.Y.B.Sc.
16.	3024	ANARASE POOJA TATYABA	F.Y.B.Sc.
17.	3025	BIBE PRANJALI VITTHAL	F.Y.B.Sc.
18.	3027	BIBE NILAM LAXMAN	F.Y.B.Sc.
19.	3028	JADHAV SAYALI SUBHASH	F.Y.B.Sc.
20.	3029	GHODAKE NIKITA ASHOK	F.Y.B.Sc.
21.	3030	BHONG MAHESH LAXMAN	F.Y.B.Sc.
22.	3031	SALGAR AMBADAS BALU	F.Y.B.Sc.
23.	3032	BORATE VAISHNAVI BAPURAV	F.Y.B.Sc.
24.	3033	NIGADE SHIVANI PANDURANG	F.Y.B.Sc.
25.	3035	SHINDE AJAY PRALHAD	F.Y.B.Sc.
26.	3036	SAYYAD IRSHAD KAYYUM	F.Y.B.Sc.
27.	3037	KADAM SNEHAL VILAS	F.Y.B.Sc.
28.	3038	SHID SHITAL SARJERAO	F.Y.B.Sc.
29.	3039	BABAR PUJA NANDKUMAR	F.Y.B.Sc.
30.	3040	GAWADE NIKITA MOHAN	F.Y.B.Sc.
31.	3041	GHADGE POONAM BHAUSAHEB	F.Y.B.Sc.
32.	3042	MORE OMKAR GURUNATH	F.Y.B.Sc.
33.	3043	DHUKHE SUJAL SHAHAJI	F.Y.B.Sc.
34.	3044	KHADE SANKET BAPURAO	F.Y.B.Sc.
35.	3046	LASHKAR SAKSHI SOMNATH	F.Y.B.Sc.
36.	3047	CHAVAN AMRUTA MAHADEO	F.Y.B.Sc.
37.	3048	NANAVARE ROHIT SANTOSH	F.Y.B.Sc.
38.	3049	BHOSALE SHUBHAM DATTATRAY	F.Y.B.Sc.

39.	3050	DEOKAR KIRAN MAHADEV	F.Y.B.Sc.
40.	3051	SURYAWANSHI AKANKSHA SANTOSH	F.Y.B.Sc.
41.	3053	BANSODE SHITAL DATTATRAYA	F.Y.B.Sc.
42.	3054	SHINDE SAKSHI ARVIND	F.Y.B.Sc.
43.	3057	MISAL ANIKET ANIL	F.Y.B.Sc.
44.	3058	MANOJ KUMAR AMAN PRIYANSHU	F.Y.B.Sc.
45.	3059	ANARASE VAISHALI MARUTI	F.Y.B.Sc.
46.	3060	SURYAWANSHI DHANASHRI SUNIL	F.Y.B.Sc.
47.	3061	BHOSALE SHITAL POPAT	F.Y.B.Sc.
48.	3062	BHOSALE NEHA SARJERAO	F.Y.B.Sc.
49.	3064	PISE KIRAN DEVIDAS	F.Y.B.Sc.
50.	3065	LAVATE ANKITA BALASO	F.Y.B.Sc.
51.	3066	SAYYAD KASHISH SALIM	F.Y.B.Sc.
52.	3067	NAWALE ROHAN SANJAY	F.Y.B.Sc.
53.	3069	BANSODE NIKITA PRAKASH	F.Y.B.Sc.
54.	3070	NALAWADE SAYALI VITHAL	F.Y.B.Sc.


Subject Teacher


H.O.D.
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ITSPM'S
Arts, Science And Commerce College, Indapur

Department of Physics

Certificate course in Essential Electronics

Attendance Sheet

Academic Year 2022-23

Sr.No.	Roll.No	Student Name	01/07	02/07	08/07	09/07	15/07	16/07
1.	3001	BAGAL PRASAD HARIDAS	P	P	P	P	P	P
2.	3003	GALANDE ANJALI BALASAHEB	P	P	P	P	P	P
3.	3004	KHABALE SAKSHI DHANAJI	P	A	P	P	P	P
4.	3006	MANE PRATHAMESH GORAKH	P	P	P	P	P	P
5.	3008	MAKHARE TUSHAR BALASAHEB	P	P	P	P	P	P
6.	3011	SUL SNEHAL SACHIN	P	P	P	P	A	P
7.	3012	MOHITE SHUBHANGI BAPU	P	P	P	P	P	P
8.	3014	LOKARE VISHAL JAYSING	P	P	P	P	P	P
9.	3015	SHENDE GAURI VIJAY	P	P	P	P	P	P
10.	3016	GIRI DNYANESHWARI SHANKAR	P	P	P	P	P	P
11.	3017	BORATE SHRAVANI ANIL	P	A	P	P	P	P
12.	3018	SHAIKH ALISHA ASLAM	P	P	P	P	P	P
13.	3021	DEVKAR SNEHAL RAJENDRA	P	P	P	P	P	P
14.	3022	SARADE SIDDHESHWAR KANTILAL	P	P	P	P	P	P
15.	3023	SHINDE SAKSHI GORAKH	P	P	P	P	P	P
16.	3024	ANARASE POOJA TATYABA	P	P	A	P	P	P
17.	3025	BIBE PRANJALI VITTHAL	P	P	P	P	P	P
18.	3027	BIBE NILAM LAXMAN	P	P	P	P	P	P
19.	3028	JADHAV SAYALI SUBHASH	P	P	P	P	P	P
20.	3029	GHODAKE NIKITA ASHOK	P	P	P	P	A	P
21.	3030	BHONG MAHESH LAXMAN	P	P	P	P	P	P
22.	3031	SALGAR AMBADAS BALU	P	P	P	P	P	P
23.	3032	BORATE VAISHNAVI BAPURAV	P	P	P	P	P	P
24.	3033	NIGADE SHIVANI PANDURANG	P	P	A	P	P	P
25.	3035	SHINDE AJAY PRALHAD	P	P	P	P	P	P
26.	3036	SAYYAD IRSHAD KAYYUM	P	P	P	P	P	P
27.	3037	KADAM SNEHAL VILAS	P	P	P	P	P	P
28.	3038	SHID SHITAL SARJERAO	P	P	A	P	P	P
29.	3039	BABAR PUJA NANDKUMAR	P	P	P	P	P	P
30.	3040	GAWADE NIKITA MOHAN	P	P	P	A	P	P
31.	3041	GHADGE POONAM BHAUSAHEB	P	P	P	P	P	P
32.	3042	MORE OMKAR GURUNATH	P	A	P	P	P	P
33.	3043	DHUKHE SUJAL SHAHAJI	P	P	P	P	P	P
34.	3044	KHADE SANKET BAPURAO	P	P	P	P	P	P
35.	3046	LASHKAR SAKSHI SOMNATH	P	P	P	P	P	P

36.	3047	CHAVAN AMRUTA MAHADEO	P	P	P	P	P	P
37.	3048	NANAVARE ROHIT SANTOSH	P	A	P	P	P	P
38.	3049	BHOSALE SHUBHAM DATTATRAY	P	P	P	P	P	P
39.	3050	DEOKAR KIRAN MAHADEV	P	P	P	P	P	P
40.	3051	SURYAWANSHI AKANKSHA SANTOSH	P	P	P	A	A	P
41.	3053	BANSODE SHITAL DATTATRAYA	P	P	A	P	P	P
42.	3054	SHINDE SAKSHI ARVIND	P	P	P	P	P	P
43.	3057	MISAL ANIKET ANIL	P	P	P	P	P	P
44.	3058	MANOJ KUMAR AMAN PRIYANSHU	P	P	P	P	P	P
45.	3059	ANARASE VAISHALI MARUTI	P	P	P	P	P	P
46.	3060	SURYAWANSHI DHANASHRI SUNIL	P	A	P	P	P	P
47.	3061	BHOSALE SHITAL POPAT	P	A	P	P	A	P
48.	3062	BHOSALE NEHA SARJERAO	P	P	A	P	P	P
49.	3064	PISE KIRAN DEVIDAS	P	P	P	P	P	P
50.	3065	LAVATE ANKITA BALASO	P	P	P	P	A	P
51.	3066	SAYYAD KASHISH SALIM	P	P	P	P	P	P
52.	3067	NAWALE ROHAN SANJAY	P	P	P	P	P	P
53.	3069	BANSODE NIKITA PRAKASH	P	P	A	P	P	P
54.	3070	NALAWADE SAYALI VITHAL	P	A	P	P	P	P


Subject Teacher


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Department of Physics

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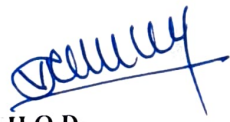
Attendance Sheet

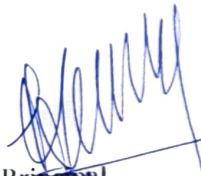
Academic Year 2022-23

Sr.No.	Roll.No	Student Name	22/07	23/07	29/07	30/07	04/08	05/08
1.	3001	BAGAL PRASAD HARIDAS	P	P	P	P	P	P
2.	3003	GALANDE ANJALI BALASAHEB	P	P	P	P	P	P
3.	3004	KHABALE SAKSHI DHANAJI	P	A	P	P	P	P
4.	3006	MANE PRATHAMESH GORAKH	P	P	P	P	P	P
5.	3008	MAKHARE TUSHAR BALASAHEB	P	P	P	P	P	P
6.	3011	SUL SNEHAL SACHIN	P	P	P	P	A	P
7.	3012	MOHITE SHUBHANGI BAPU	P	P	P	P	P	P
8.	3014	LOKARE VISHAL JAYSING	P	P	P	P	P	P
9.	3015	SHENDE GAURI VIJAY	P	P	P	P	P	P
10.	3016	GIRI DNYANESHWARI SHANKAR	P	P	P	P	P	P
11.	3017	BORATE SHRAVANI ANIL	P	A	P	P	P	P
12.	3018	SHAIKH ALISHA ASLAM	P	P	P	P	P	P
13.	3021	DEVKAR SNEHAL RAJENDRA	P	P	P	P	P	P
14.	3022	SARADE SIDDHESHWAR KANTILAL	P	P	P	P	P	P
15.	3023	SHINDE SAKSHI GORAKH	P	P	P	P	P	P
16.	3024	ANARASE POOJA TATYABA	P	P	A	P	P	P
17.	3025	BIBE PRANJALI VITTHAL	P	P	P	P	P	P
18.	3027	BIBE NILAM LAXMAN	P	P	P	P	P	P
19.	3028	JADHAV SAYALI SUBHASH	P	P	P	P	P	P
20.	3029	GHODAKE NIKITA ASHOK	P	P	P	P	A	P
21.	3030	BHONG MAHESH LAXMAN	P	P	P	P	P	P
22.	3031	SALGAR AMBADAS BALU	P	P	P	P	P	P
23.	3032	BORATE VAISHNAVI BAPURAV	P	P	P	P	P	P
24.	3033	NIGADE SHIVANI PANDURANG	P	P	A	P	P	P
25.	3035	SHINDE AJAY PRALHAD	P	P	P	P	P	P
26.	3036	SAYYAD IRSHAD KAYYUM	P	P	P	P	P	P
27.	3037	KADAM SNEHAL VILAS	P	P	P	P	P	P
28.	3038	SHID SHITAL SARJERAO	P	P	A	P	P	P
29.	3039	BABAR PUJA NANDKUMAR	P	P	P	P	P	P
30.	3040	GAWADE NIKITA MOHAN	P	P	P	A	P	P
31.	3041	GHADGE POONAM BHAUSAHEB	P	P	P	P	P	P
32.	3042	MORE OMKAR GURUNATH	P	A	P	P	P	P
33.	3043	DHUKHE SUJAL SHAHAJI	P	P	P	P	P	P
34.	3044	KHADE SANKET BAPURAO	P	P	P	P	P	P
35.	3046	LASHKAR SAKSHI SOMNATH	P	P	P	P	P	P

36.	3047	CHAVAN AMRUTA MAHADEO	P	P	P	P	P	P
37.	3048	NANAVARE ROHIT SANTOSH	P	A	P	P	P	P
38.	3049	BHOSALE SHUBHAM DATTATRAY	P	P	P	P	P	P
39.	3050	DEOKAR KIRAN MAHADEV	P	P	P	P	P	P
40.	3051	SURYAWANSHI AKANKSHA SANTOSH	P	P	P	A	A	P
41.	3053	BANSODE SHITAL DATTATRAYA	P	P	A	P	P	P
42.	3054	SHINDE SAKSHI ARVIND	P	P	P	P	P	P
43.	3057	MISAL ANIKET ANIL	P	P	P	P	P	P
44.	3058	MANOJ KUMAR AMAN PRIYANSHU	P	P	P	P	P	P
45.	3059	ANARASE VAISHALI MARUTI	P	P	P	P	P	P
46.	3060	SURYAWANSHI DHANASHRI SUNIL	P	A	P	P	P	P
47.	3061	BHOSALE SHITAL POPAT	P	A	P	P	A	P
48.	3062	BHOSALE NEHA SARJERAO	P	P	A	P	P	P
49.	3064	PISE KIRAN DEVIDAS	P	P	P	P	P	P
50.	3065	LAVATE ANKITA BALASO	P	P	P	P	A	P
51.	3066	SAYYAD KASHISH SALIM	P	A	P	P	P	P
52.	3067	NAWALE ROHAN SANJAY	P	P	P	P	P	P
53.	3069	BANSODE NIKITA PRAKASH	A	A	P	P	P	P
54.	3070	NALAWADE SAYALI VITHAL	P	P	P	A	P	P


Subject Teacher


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Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune


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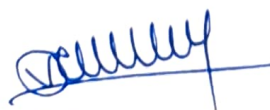


ITSPM'S
Arts, Science And Commerce College, Indapur
Department of Physics
Certificate course in Essential Electronics
Academic Year 2022-23
Practical Attendance

Sr.No.	Roll.No	Student Name	07/07	10/09	14/07	21/07	28/07	06/08	13/08
1.	3001	BAGAL PRASAD HARIDAS	P	P	P	P	P	P	P
2.	3003	GALANDE ANJALI BALASAHEB	P	P	P	P	P	P	P
3.	3004	KHABALE SAKSHI DHANAJI	P	A	P	P	P	P	P
4.	3006	MANE PRATHAMESH GORAKH	P	P	P	P	P	P	P
5.	3008	MAKHARE TUSHAR BALASAHEB	P	P	P	P	P	P	P
6.	3011	SUL SNEHAL SACHIN	P	P	P	P	A	P	P
7.	3012	MOHITE SHUBHANGI BAPU	P	P	P	P	P	P	P
8.	3014	LOKARE VISHAL JAYSING	P	P	P	P	P	P	A
9.	3015	SHENDE GAURI VIJAY	P	P	P	P	P	P	P
10.	3016	GIRI DNYANESHWARI SHANKAR	P	P	P	P	P	P	P
11.	3017	BORATE SHRAVANI ANIL	P	A	P	P	P	P	P
12.	3018	SHAIKH ALISHA ASLAM	P	P	P	P	P	P	P
13.	3021	DEVKAR SNEHAL RAJENDRA	P	P	P	P	P	P	A
14.	3022	SARADE SIDDHESHWAR KANTILAL	P	P	P	P	P	P	P
15.	3023	SHINDE SAKSHI GORAKH	P	P	P	P	P	P	P
16.	3024	ANARASE POOJA TATYABA	P	P	A	P	P	P	P
17.	3025	BIBE PRANJALI VITTHAL	P	P	P	P	P	P	P
18.	3027	BIBE NILAM LAXMAN	P	P	P	P	P	P	P
19.	3028	JADHAV SAYALI SUBHASH	P	P	P	P	P	P	P
20.	3029	GHODAKE NIKITA ASHOK	P	P	P	P	A	P	P
21.	3030	BHONG MAHESH LAXMAN	P	P	P	P	P	P	P
22.	3031	SALGAR AMBADAS BALU	P	P	P	P	P	P	A
23.	3032	BORATE VAISHNAVI BAPURAV	P	P	P	P	P	P	P
24.	3033	NIGADE SHIVANI PANDURANG	P	P	A	P	P	P	P
25.	3035	SHINDE AJAY PRALHAD	P	P	P	P	P	P	P
26.	3036	SAYYAD IRSHAD KAYYUM	P	P	P	P	P	P	P
27.	3037	KADAM SNEHAL VILAS	P	P	P	P	P	P	P
28.	3038	SHID SHITAL SARJERAO	P	P	A	P	P	P	P
29.	3039	BABAR PUJA NANDKUMAR	P	P	P	P	P	P	P
30.	3040	GAWADE NIKITA MOHAN	P	P	P	A	P	P	P
31.	3041	GHADGE POONAM BHAUSAHEB	P	P	P	P	P	P	A
32.	3042	MORE OMKAR GURUNATH	P	A	P	P	P	P	P
33.	3043	DHUKHE SUJAL SHAHAJI	P	P	P	P	P	P	P

34.	3044	KHADE SANKET BAPURAO	P	P	P	P	P	P	P
35.	3046	LASHKAR SAKSHI SOMNATH	P	P	P	P	P	P	P
36.	3047	CHAVAN AMRUTA MAHADEO	P	P	P	P	P	P	P
37.	3048	NANAVARE ROHIT SANTOSH	P	A	P	P	P	P	P
38.	3049	BHOSALE SHUBHAM DATTATRAY	P	P	P	P	P	P	A
39.	3050	DEOKAR KIRAN MAHADEV	P	P	P	P	P	P	P
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42.	3054	SHINDE SAKSHI ARVIND	P	P	P	P	P	P	P
43.	3057	MISAL ANIKET ANIL	P	P	P	P	P	P	P
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46.	3060	SURYAWANSHI DHANASHRI SUNIL	P	A	P	P	P	P	A
47.	3061	BHOSALE SHITAL POPAT	P	A	P	P	A	P	P
48.	3062	BHOSALE NEHA SARJERAO	P	P	A	P	P	P	P
49.	3064	PISE KIRAN DEVIDAS	P	P	P	P	P	P	P
50.	3065	LAVATE ANKITA BALASO	P	P	P	P	A	P	P
51.	3066	SAYYAD KASHISH SALIM	P	P	P	P	P	P	P
52.	3067	NAWALE ROHAN SANJAY	P	A	P	P	P	P	P
53.	3069	BANSODE NIKITA PRAKASH	P	P	P	P	P	P	A
54.	3070	NALAWADE SAYALI VITHAL	P	P	A	P	P	P	P


Subject Teacher


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Indapur Taluka Shikshan Prasarak Mandal's,
Arts, Science and Commerce College,
Indapur, Dist. Pune

(Affiliated to Savitribai Phule Pune University, Pune)



Organized

Certificate Course on Essential Electronics
(Academic Year 2022-23)

This is to certify that **SHAIKH ALISHA ASLAM** a student from F. Y. B.Sc. Class has actively participated and successfully completed Certificate Course on Essential Electronics (4 Credits). This course is organized by Department of Physics, ITSPM's, Arts, Science and Commerce College, Indapur, Dist. Pune from 01.07.2022 to 13.08.2022


Prof. Akin Kamble
Course Coordinator


Prof. Dr. Shivaji Veer
Head Dept. of Physics


Prof. Dr. Shivaji Veer
IQAC Coordinator


Prof. Dr. Jiwan Sarwade
Principal

**Indapur Taluka Shikshan Prasarak Mandal's
Arts, Science and Commerce College Indapur Dist. Pune
Department of Physics
Certificate Course in Astrophysics
Syllabus
From Academic Year 2022-23**

Objectives of Certificate Course

1. The student should know the Instruments
2. The student should know the applications of Astronomical instruments

Certificate Course Outcomes

1. Understand the concept of measurements
2. Know the different units
3. Applications of instruments
4. Use of Astrophysics in day today life

Module 1. Fundamental of Astronomy

10L

Introduction : Concept of Universe, star system

Origin Basic measurement: physical size, mass, density, rotation period
determination

Module 2 : Cosmology & Quantum mechanics

10L

Cosmology: A subfield of astrophysics that deals with the universe on large scales

Quantum mechanics: Astrophysics is not the same as quantum physics

Module 3 : Celestial mechanics

10L

Celestial mechanics: Astronomy uses physics, chemistry, and mathematics to study celestial objects and their phenomena

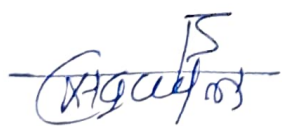
Positional astronomy: A branch of astronomy that can be traced back to Greek philosophers like Aristotle

Module 4: Plasma physics

10L

Plasma physics: A fundamental subject that is relevant to many research areas, including astrophysics

Theoretical physics: A wide range of disciplines that includes astrophysics and cosmology


Course Coordinator
Mr. Patel S.H.


Principal
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ITSPM'S

Arts, Science And Commerce College, Indapur

Department Of Physics

Notice for Student

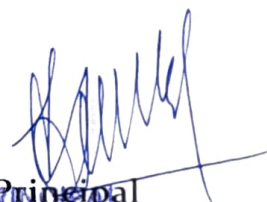
Date-25/11/2022

All the Student who registered their names to 'Certificate Course in Astrophysics' are hereby informed that their lectures will be started on Thursday , 01/12/2022 in Room No. 78 at 1 pm to 2 pm. It is compulsory to attend the lectures of value added course for getting desired credit.



HOD
Head

Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune



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ITSPM'S

Arts, Science And Commerce College, Indapur

Department Of Physics

Notice for Student

Date-25/11/2022

All the Student who registered their names to 'Certificate Course in Astrophysics' are hereby informed that their Practical's will be started on Saturday, 03/12/2022 in Room No.59 at 1 pm to 5 pm. It is compulsory to attain the Practical's of value added course for getting desired credit.





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Arts, Science & Commerce
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ITSPM'S

Arts, Science And Commerce College , Indapur

Department Of Physics

Certificate Course in Astrophysics

2022-23

Timetable

Time	Thursday	Friday	Saturday
1 pm To 2 pm	Theory	Theory	-
1 pm To 5 Pm	-	-	Practical

HOD
Head

Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune



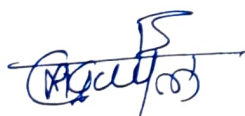
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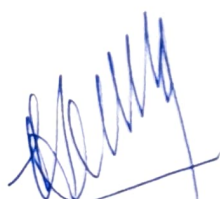
ITSPM'S
Arts, Science And Commerce College, Indapur
Department of Physics
Certificate course in Astrophysics
List of Registered Students
Academic Year 2022-23

Sr.No.	Roll.No.	Student Name	Class
1.	8001	JAGTAP VRUSHALI SHANKAR	S Y B Sc
2.	8004	SARADE ARCHANA HANUMANT	S Y B Sc
3.	8006	SURWASE VISHWATEJ MAHADEV	S Y B Sc
4.	8008	KARE SURAKSHA PARASHURAM	S Y B Sc
5.	8009	GUTAL PRADNYA KANIFNATH	S Y B Sc
6.	8013	WAGHMODE GANESH ANKUSH	S Y B Sc
7.	8014	WAGHMODE SUDIP MAHADEV	S Y B Sc
8.	8015	PATIL DIPALI NAGNATH	S Y B Sc
9.	8018	JAGTAP ARATI ARJUN	S Y B Sc
10.	8019	BALE VINAYAJYOTHI KIRANKUMAR	S Y B Sc
11.	8021	BALE ANUSHA KIRANKUMAR	S Y B Sc
12.	8022	PAWAR KALYANI ASHOK	S Y B Sc
13.	8029	JAGTAP SNEHAL LALASAHEB	S Y B Sc
14.	8030	DOLAS JAYASHRI SIDDHESHWAR	S Y B Sc
15.	8031	BANSODE PRIYA ANNASAHEB	S Y B Sc
16.	8033	GANDHALE NIKITA JYOTIRAM	S Y B Sc
17.	8035	BHONG GANESH BALU	S Y B Sc
18.	8036	NALAWADE KULDIP VINOD	S Y B Sc
19.	8038	BHOSALE MADHURI NAVNATH	S Y B Sc
20.	8039	PAWAR AMIT SANJAY	S Y B Sc
21.	8040	BHUJBAL ATISH ATUL	S Y B Sc
22.	8049	GHADAGE VIDYA HANUMANT	S Y B Sc
23.	8050	SHAIKH ALFIYA ASLAM	S Y B Sc
24.	8051	YADAV ONKAR BHAUSAHEB	S Y B Sc
25.	8055	PATHAN ARBAJ AYUB	S Y B Sc
26.	8060	KADAM MAHADEV KALYAN	S Y B Sc
27.	8062	RASAL SANTOSH BHIMRAO	S Y B Sc
28.	8064	PATIL AHILYA DURYODHAN	S Y B Sc
29.	8066	THORAT SAKSHI DADA	S Y B Sc
30.	8068	DHERE SAMADHAN AJINATH	S Y B Sc
31.	8074	KUMBHAR RUSHIKESH PANDURANG	S Y B Sc
32.	8077	MANE SIDDHNATH RAJENDRA	S Y B Sc
33.	8078	LONDHE PRATHMESH SIDDHESHWAR	S Y B Sc
34.	8081	LONDHE SAMADHAN BHIMRAO	S Y B Sc
35.	8090	BALVANTRAO PRANIL RAJENDRA	S Y B Sc

36.	8097	BABAR ADITYA DATTATRAY	S Y B Sc
37.	8184	WAGHMODE AKSHAY VISHNU	S Y B Sc
38.	8189	KALEL POOJA TANAJI	S Y B Sc
39.	8200	MULANI SHANNU KASIM	S Y B Sc
40.	9025	CHAPHAKANADE NIKITA VISHWANATH	T Y B Sc
41.	9032	PRAJAKTA KALIDAS MARKAD	T Y B Sc
42.	9039	VAJALE PRATIKSHA BANDU	T Y B Sc
43.	9049	SHAIKH SAJIYA MUBIN	T Y B Sc
44.	9057	KANCHE POOJA BAPU	T Y B Sc
45.	9224	RAUT VIDHYA SURESH	T Y B Sc
46.	8203	BARAL ARPITA SUBHASH	S Y B Sc
47.	8213	KALEL TUSHAR UTTAM	S Y B Sc
48.	8223	GORAVE SEJAL BHASKAR	S Y B Sc


Subject Teacher


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Head
Department of Physics
Arts, Science & Commerce
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ITSPM'S
Arts, Science And Commerce College, Indapur
Department of Physics
Certificate course in Astrophysics
Attendance Sheet
Academic Year 2022-23

Sr.No.	Roll.N o.	Student Name	01/12	02/12	08/12	09/12	15/12	16/12
1.	8001	JAGTAP VRUSHALI SHANKAR	P	P	P	P	P	P
2.	8004	SARADE ARCHANA HANUMANT	P	P	P	P	P	P
3.	8006	SURWASE VISHWATEJ MAHADEV	P	P	P	P	P	P
4.	8008	KARE SURAKSHA PARASHURAM	P	P	P	P	P	P
5.	8009	GUTAL PRADNYA KANIFNATH	P	P	P	P	P	P
6.	8013	WAGHMODE GANESH ANKUSH	P	P	A	P	P	P
7.	8014	WAGHMODE SUDIP MAHADEV	P	P	P	P	P	P
8.	8015	PATIL DIPALI NAGNATH	P	P	A	P	P	P
9.	8018	JAGTAP ARATI ARJUN	P	P	P	P	P	P
10.	8019	BALE VINAYAJYOTHI KIRANKUMAR	P	P	A	P	P	P
11.	8021	BALE ANUSHA KIRANKUMAR	P	P	P	A	P	P
12.	8022	PAWAR KALYANI ASHOK	P	P	P	P	P	P
13.	8029	JAGTAP SNEHAL LALASAHEB	P	P	P	P	P	P
14.	8030	DOLAS JAYASHRI SIDDHESHWAR	P	P	P	A	P	P
15.	8031	BANSODE PRIYA ANNASAHEB	P	P	P	P	P	P
16.	8033	GANDHALE NIKITA JYOTIRAM	P	P	P	P	A	P
17.	8035	BHONG GANESH BALU	P	P	P	P	P	P
18.	8036	NALAWADE KULDIP VINOD	P	P	A	P	P	P
19.	8038	BHOSALE MADHURI NAVNATH	P	P	P	P	P	P
20.	8039	PAWAR AMIT SANJAY	P	P	P	P	P	P
21.	8040	BHUJBAL ATISH ATUL	P	P	A	P	P	P
22.	8049	GHADAGE VIDYA HANUMANT	P	P	P	P	P	P
23.	8050	SHAIKH ALFIYA ASLAM	P	P	P	A	P	P
24.	8051	YADAV ONKAR BHAUSAHEB	P	P	P	P	A	P
25.	8055	PATHAN ARBAJ AYUB	P	A	P	P	P	P
26.	8060	KADAM MAHADEV KALYAN	P	P	A	P	A	P
27.	8062	RASAL SANTOSH BHIMRAO	P	P	P	P	P	P
28.	8064	PATIL AHILYA DURYODHAN	P	P	P	P	P	P

29.	8066	THORAT SAKSHI DADA	P	P	P	P	P	P
30.	8068	DHERE SAMADHAN AJINATH	P	P	A	P	P	P
31.	8074	KUMBHAR RUSHIKESH PANDURANG	P	P	P	P	P	P
32.	8077	MANE SIDDHNATH RAJENDRA	P	P	P	P	P	P
33.	8078	LONDHE PRATHMESH SIDDHESHWAR	P	P	P	A	P	P
34.	8081	LONDHE SAMADHAN BHIMRAO	P	P	P	P	P	P
35.	8090	BALVANTRAO PRANIL RAJENDRA	P	P	A	P	P	P
36.	8097	BABAR ADITYA DATTATRAY	P	P	P	P	P	A
37.	8184	WAGHMODE AKSHAY VISHNU	P	P	P	P	P	P
38.	8189	KALEL POOJA TANAJI	P	P	P	P	P	P
39.	8200	MULANI SHANNU KASIM	P	P	P	P	P	P
40.	9025	CHAPHAKANADE NIKITA VISHWANATH	P	A	P	P	P	P
41.	9032	PRAJAKTA KALIDAS MARKAD	P	P	P	P	P	P
42.	9039	VAJALE PRATIKSHA BANDU	P	P	P	P	P	P
43.	9049	SHAIKH SAJIYA MUBIN	P	P	A	P	P	A
44.	9057	KANCHE POOJA BAPU	P	P	P	P	P	P
45.	9224	RAUT VIDHYA SURESH	P	A	P	P	P	P

[Signature]

Subject Teacher

[Signature]

H.O.D
Head

Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune

[Signature]

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ITSPM'S
Arts, Science And Commerce College, Indapur
Department of Physics
Certificate course in Astrophysics
Attendance Sheet
Academic Year 2022-23

Sr.No.	Roll.No.	Student Name	22/12	23/12	29/12	05/01	06/0	12/01
1.	8001	JAGTAP VRUSHALI SHANKAR	P	P	P	P	P	P
2.	8004	SARADE ARCHANA HANUMANT	P	P	P	P	P	P
3.	8006	SURWASE VISHWATEJ MAHADEV	P	P	P	P	P	P
4.	8008	KARE SURAKSHA PARASHURAM	P	P	P	P	P	P
5.	8009	GUTAL PRADNYA KANIFNATH	P	P	P	P	P	P
6.	8013	WAGHMODE GANESH ANKUSH	P	P	A	P	P	P
7.	8014	WAGHMODE SUDIP MAHADEV	P	P	P	P	P	P
8.	8015	PATIL DIPALI NAGNATH	P	P	A	P	P	P
9.	8018	JAGTAP ARATI ARJUN	P	P	P	P	P	P
10.	8019	BALE VINAYAJYOTHI KIRANKUMAR	P	P	A	P	P	P
11.	8021	BALE ANUSHA KIRANKUMAR	P	P	P	A	P	P
12.	8022	PAWAR KALYANI ASHOK	P	P	P	P	P	P
13.	8029	JAGTAP SNEHAL LALASAHEB	P	P	P	P	P	P
14.	8030	DOLAS JAYASHRI SIDDHESHWAR	P	P	P	A	P	P
15.	8031	BANSODE PRIYA ANNASAHEB	P	P	P	P	P	P
16.	8033	GANDHALE NIKITA JYOTIRAM	P	P	P	P	A	P
17.	8035	BHONG GANESH BALU	P	P	P	P	P	P
18.	8036	NALAWADE KULDIP VINOD	P	P	A	P	P	P
19.	8038	BHOSALE MADHURI NAVNATH	P	P	P	P	P	P
20.	8039	PAWAR AMIT SANJAY	P	P	P	P	P	P
21.	8040	BHUJBAL ATISH ATUL	P	P	A	P	P	P
22.	8049	GHADAGE VIDYA HANUMANT	P	P	P	P	P	P
23.	8050	SHAIKH ALFIYA ASLAM	P	P	P	A	P	P
24.	8051	YADAV ONKAR BHAUSAHEB	P	P	P	P	A	P
25.	8055	PATHAN ARBAJ AYUB	P	A	P	P	P	P
26.	8060	KADAM MAHADEV KALYAN	P	P	A	P	A	P
27.	8062	RASAL SANTOSH BHIMRAO	P	P	P	P	P	P
28.	8064	PATIL AHILYA DURYODHAN	P	P	P	P	P	P
29.	8066	THORAT SAKSHI DADA	P	P	P	P	P	P
30.	8068	DHERE SAMADHAN AJINATH	P	P	A	P	P	P
31.	8074	KUMBHAR RUSHIKESH PANDURANG	P	P	P	P	P	P
32.	8077	MANE SIDDHNATH RAJENDRA	P	P	P	P	P	P
33.	8078	LONDHE PRATHMESH SIDDHESHWAR	P	P	P	A	P	P

34.	8081	LONDHE SAMADHAN BHIMRAO	P	P	P	P	P	P
35.	8090	BALVANTRAO PRANIL RAJENDRA	P	P	A	P	P	P
36.	8097	BABAR ADITYA DATTATRAY	P	P	P	P	P	A
37.	8184	WAGHMODE AKSHAY VISHNU	P	P	P	P	P	P
38.	8189	KALEL POOJA TANAJI	P	P	P	P	P	P
39.	8200	MULANI SHANNU KASIM	P	P	P	P	P	P
40.	8203	BARAL ARPITA SUBHASH	P	P	P	P	P	P
41.	8213	KALEL TUSHAR UTTAM	P	P	P	P	P	P
42.	8223	GORAVE SEJAL BHASKAR	P	P	P	P	P	P
43.	9025	CHAPHAKANADE NIKITA VISHWANATH	P	A	P	P	P	P
44.	9032	PRAJAKTA KALIDAS MARKAD	P	P	P	P	P	P
45.	9039	VAJALE PRATIKSHA BANDU	P	P	P	P	P	P
46.	9049	SHAIKH SAJIYA MUBIN	P	P	A	P	P	A
47.	9057	KANCHE POOJA BAPU	P	P	P	P	P	P
48.	9224	RAUT VIDHYA SURESH	P	A	P	P	P	P



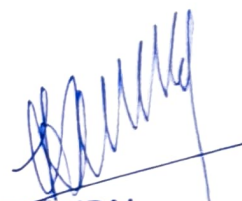
Subject Teacher



H.O.D

Head

Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune



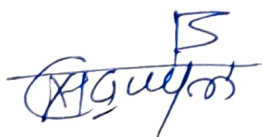
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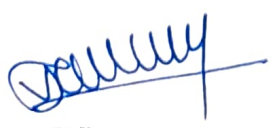


ITSPM'S
Arts, Science And Commerce College, Indapur
Department of Physics
Certificate course in Astrophysics
Academic Year 2022-23
Practical Attendance

Sr.No.	Roll.No.	Student Name	03/12	10/12	17/12	24/12	31/12	07/01	14/01
1.	8001	JAGTAP VRUSHALI SHANKAR	P	P	P	P	P	P	P
2.	8004	SARADE ARCHANA HANUMANT	P	P	P	P	P	P	A
3.	8006	SURWASE VISHWATEJ MAHADEV	P	P	P	P	P	P	P
4.	8008	KARE SURAKSHA PARASHURAM	P	P	P	P	P	P	P
5.	8009	GUTAL PRADNYA KANIFNATH	P	P	P	P	P	P	P
6.	8013	WAGHMODE GANESH ANKUSH	P	A	A	P	A	P	P
7.	8014	WAGHMODE SUDIP MAHADEV	P	P	P	P	P	P	A
8.	8015	PATIL DIPALI NAGNATH	P	P	A	P	P	P	P
9.	8018	JAGTAP ARATI ARJUN	P	P	P	P	P	P	P
10.	8019	BALE VINAYAJYOTHI KIRANKUMAR	P	P	A	P	P	P	P
11.	8021	BALE ANUSHA KIRANKUMAR	P	P	P	A	P	P	P
12.	8022	PAWAR KALYANI ASHOK	P	P	A	P	P	P	P
13.	8029	JAGTAP SNEHAL LALASAHEB	P	P	P	P	P	P	P
14.	8030	DOLAS JAYASHRI SIDDHESHWAR	P	P	P	A	P	P	P
15.	8031	BANSODE PRIYA ANNASAHEB	P	P	P	P	P	P	A
16.	8033	GANDHALE NIKITA JYOTIRAM	P	P	P	P	A	P	P
17.	8035	BHONG GANESH BALU	P	P	P	P	P	P	P
18.	8036	NALAWADE KULDIP VINOD	P	P	A	P	P	P	P
19.	8038	BHOSALE MADHURI NAVNATH	P	P	A	P	P	P	P
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26.	8060	KADAM MAHADEV KALYAN	P	P	A	P	A	P	P
27.	8062	RASAL SANTOSH BHIMRAO	P	P	P	P	P	P	P
28.	8064	PATIL AHILYA DURYODHAN	P	P	P	P	P	P	P
29.	8066	THORAT SAKSHI DADA	P	P	P	P	P	P	A
30.	8068	DHERE SAMADHAN AJINATH	P	P	A	P	P	P	P
31.	8074	KUMBHAR RUSHIKESH PANDURANG	P	P	P	P	P	P	P
32.	8077	MANE SIDDHNATH RAJENDRA	P	P	P	P	P	P	P
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35.	8090	BALVANTRAO PRANIL RAJENDRA	P	P	A	P	P	P	P
36.	8097	BABAR ADITYA DATTATRAY	P	P	P	P	P	A	P
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38.	8189	KALEL POOJA TANAJI	P	P	P	P	P	P	P
39.	8200	MULANI SHANNU KASIM	P	P	P	A	P	P	P
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48.	9224	RAUT VIDHYA SURESH	P	A	P	P	P	P	P


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Indapur Taluka Shikshan Prasarak Mandal's,
ARTS, SCIENCE AND COMMERCE COLLEGE,
INDAPUR, DIST. PUNE

(Affiliated to Savitribai Phule Pune University, Pune)



● Organized ●

Certificate Course on Astrophysics
(Academic Year 2022-23)

This is to certify that **KALEL TUSHAR UTTAM** a student from S. Y. B.Sc. Class has actively participated and successfully completed Certificate Course on Astrophysics (4 Credits). This course is organized by Department of Physics, ITSPM's, Arts, Science and Commerce College, Indapur, Dist. Pune from 01.12.2022 to 14.01.2023

Prof. Saddam Patel
Course Coordinator

Prof. Dr. Shivaji Veer
Head Dept. of Physics

Prof. Dr. Shivaji Veer
IQAC Co-ordinator

Prof. Dr. Jivans Sarwade
Principal

Indapur Taluka Shikshan Prasarak Mandals
Arts, Science and Commerce College, Indapur

Department of Physics

Notice for Student

Date-02/02/2022

Dear Students,

Welcome back to Arts, Science and Commerce College, Indapur for the 4th semester of the academic year 2022-23. The classes for the Value-Added Courses (VAC) for 4th semesters will commence from February 16, 2022, onwards. The appropriate timetable for these classes will be uploaded in our college website soon.

Students who have not yet registered for the above said VAC classes are hereby informed to do so on or before February 05, 2022, WITHOUT FAIL.

Kindly note ATTENDANCE RECORDING will commence from the day of opening i.e., February 16, 2022, itself and hence it is mandatory for all students to attend the classes from February 16, 2022, onwards.



HOD

Head
Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune



Principal

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INDAPUR, DIST. PUNE



Indapur Taluka Shikshan Prasarak Mandals
Arts, Science and Commerce College Indapur Dist. Pune
Department of Physics
Certificate Course in Fundamentals of Research
Syllabus
From Academic Year 2022-23

➡ **Objectives.**

Here's a breakdown of the common research objectives, along with their key characteristics and examples:

1. Exploratory Research

- **Purpose:** To gain initial insights into a new or unfamiliar phenomenon.
- **Key Characteristics:**
 - Flexible research design
 - Qualitative methods (interviews, observations, case studies)
 - Small-scale studies
- **Example:** Studying a newly emerging social media platform to understand its impact on user behavior.

2. Descriptive Research

- **Purpose:** To accurately portray the characteristics of a particular individual, group, or situation.
- **Key Characteristics:**
 - Well-defined research questions
 - Quantitative methods (surveys, questionnaires)
 - Large sample sizes
- **Example:** Conducting a survey to determine the demographics of a specific population.

3. Diagnostic Research

- **Purpose:** To identify the causes or reasons behind a particular problem or phenomenon.
- **Key Characteristics:**
 - In-depth analysis of causal relationships
 - Quantitative methods (statistical analysis)
 - Focus on underlying causes
- **Example:** Analyzing data to identify the factors contributing to a decline in student performance.

4. Hypothesis-Testing Research

- **Purpose:** To test a specific hypothesis about a causal relationship between variables.
- **Key Characteristics:**
 - Rigorous research design
 - Quantitative methods (experiments, controlled studies)
 - Statistical analysis to test hypotheses
- **Example:** Conducting a randomized controlled trial to evaluate the effectiveness of a new drug.

Remember:

- These research types are often interconnected. A single study can combine elements of multiple types.
- The choice of research type depends on the specific research question and the level of existing knowledge about the topic.

Would you like to explore a specific research type in more detail, or perhaps discuss how to design a research study?

 Research Methodology Learning Outcomes for the Program.

[1] Understanding the nature of the subject to be studied and identifying the pertinent branch of knowledge.

[2] Reading the literature to find out how other individuals have tackled the problem or found answers.

[3] Compiling data in an organized and controlled manner to enable the drawing of well-informed judgments.

[4] Analyzing information pertinent to the problem.



SYLLABUS

Certificate Course in Fundamentals of Research (Lectures 40)

Module 1: Basic Introduction of the Research Methodology (Lectures 08)

Research methods versus scientific methodology, the relevance of understanding how research is conducted, the goal of research, the purpose behind it, the sorts of research, the approaches taken, the significance of research, the significance of research, the process of conducting research, and the standards of good research.

Module 2: Research Process (Lectures 07)

Research design: definition, characteristics of a good design, key ideas that relate to research design, and several fundamental designs.

Module 3: WHAT IS A RESEARCH PROBLEM (Lectures 07)

Research statistics, measures of central tendency, dispersion, asymmetry, relationship, simple regression analysis, multiple correlation, regression, and partial correlation; data collection methods; data analysis kinds; and statistics.

Module 4: Experimental part 1 (Lectures 09)

Cleaning the substrate, preparing the solution, assembling the experimental components, etc.

Module 5] Experimental part 2 (Lectures 09)

sample collection and analysis, sample preparation utilizing various techniques, The report's preparation.

Reference Books

1] Research Methodology methods and techniques, By C. R. Kothari, New Age International (P) Limited Publisher, ISBN (13): 978-81-224-2488-1.



Indapur Taluka Shikshan Prasarak Mandals
Arts, Science and Commerce College Indapur Dist. Pune
Department of Physics
Certificate Course in Fundamentals of Research

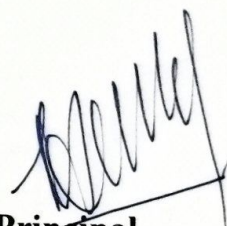
Timetable 2022-23

Time	Thursday	Friday	Saturday
1 pm To 2 pm	Theory	Theory	-
1 pm To 5 Pm	-	-	Practical



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Indapur Taluka Shikshan Prasarak Mandals
Arts, Science and Commerce College Indapur Dist. Pune
Department of Physics
Certificate Course in Fundamentals of Research

List of Registered Students
Academic Year 2022-23

Sr.No.	Roll.No.	Student Name	Class
1.	8001	Jagtap Vrushali Shankar	S.Y.B.Sc.
2.	8004	Sarade Archana Hanumant	S.Y.B.Sc.
3.	8006	Surwase Vishwatej Mahadev	S.Y.B.Sc.
4.	8008	Kare Suraksha Parashuram	S.Y.B.Sc.
5.	8009	Gutal Pradnya Kanifnath	S.Y.B.Sc.
6.	8013	Waghmode Ganesh Ankush	S.Y.B.Sc.
7.	8014	Waghmode Sudip Mahadev	S.Y.B.Sc.
8.	8015	Patil Dipali Nagnath	S.Y.B.Sc.
9.	8018	Jagtap Arati Arjun	S.Y.B.Sc.
10.	8019	Bale Vinayajyothi Kirankumar	S.Y.B.Sc.
11.	8021	Bale Anusha Kirankumar	S.Y.B.Sc.
12.	8022	Pawar Kalyani Ashok	S.Y.B.Sc.
13.	8029	Jagtap Snehal Lalasaheb	S.Y.B.Sc.
14.	8030	Dolas Jayashri Siddheshwar	S.Y.B.Sc.
15.	8031	Bansode Priya Annasaheb	S.Y.B.Sc.
16.	8033	Gandhale Nikita Jyotiram	S.Y.B.Sc.
17.	8035	Bhong Ganesh Balu	S.Y.B.Sc.
18.	8036	Nalawade Kuldip Vinod	S.Y.B.Sc.
19.	8038	Bhosale Madhuri Navnath	S.Y.B.Sc.
20.	8039	Pawar Amit Sanjay	S.Y.B.Sc.
21.	8040	Bhujbal Atish Atul	S.Y.B.Sc.
22.	8049	Ghadage Vidya Hanumant	S.Y.B.Sc.
23.	8050	Shaikh Alfiya Aslam	S.Y.B.Sc.
24.	8051	Yadav Onkar Bhausahab	S.Y.B.Sc.
25.	8055	Pathan Arbaj Ayub	S.Y.B.Sc.
26.	8060	Kadam Mahadev Kalyan	S.Y.B.Sc.
27.	8062	Rasal Santosh Bhimrao	S.Y.B.Sc.
28.	8064	Patil Ahilya Duryodhan	S.Y.B.Sc.
29.	8066	Thorat Sakshi Dada	S.Y.B.Sc.
30.	8068	Dhere Samadhan Ajinath	S.Y.B.Sc.
31.	8074	Kumbhar Rushikesh Pandurang	S.Y.B.Sc.
32.	8077	Mane Siddhnath Rajendra	S.Y.B.Sc.
33.	8078	Londhe Prathmesh Siddheshwar	S.Y.B.Sc.
34.	8081	Londhe Samadhan Bhimrao	S.Y.B.Sc.
35.	8090	Balvantrao Pranil Rajendra	S.Y.B.Sc.

36.	8097	Babar Aditya Dattatray	S.Y.B.Sc.
37.	8184	Waghmode Akshay Vishnu	S.Y.B.Sc.
38.	8189	Kalel Pooja Tanaji	S.Y.B.Sc.
39.	8200	Mulani Shannu Kasim	S.Y.B.Sc.
40.	9025	Chaphakanade Nikita Vishwanath	T.Y.B.Sc.
41.	9032	Prajakta Kalidas Markad	T.Y.B.Sc.
42.	9039	Vajale Pratiksha Bandu	T.Y.B.Sc.
43.	9049	Shaikh Sajiya Mubin	T.Y.B.Sc.
44.	9057	Kanche Pooja Bapu	T.Y.B.Sc.
45.	9224	Raut Vidhya Suresh	T.Y.B.Sc.



Subject Teacher



H.O.D

Head

Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune



Principal

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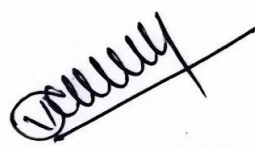
Indapur Taluka Shikshan Prasarak Mandals
Arts, Science and Commerce College Indapur Dist. Pune
Department of Physics
Certificate Course in Fundamentals of Research

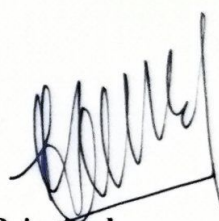
Attendance Sheet
Academic Year 2022-23

Sr.No.	Roll.No.	Student Name	16/02	17/02	18/02	23/02	24/02	25/02
1.	8001	Jagtap Vrushali Shankar	P	P	P	P	P	P
2.	8004	Sarade Archana Hanumant	P	P	P	P	P	P
3.	8006	Surwase Vishwatej Mahadev	P	P	P	P	P	P
4.	8008	Kare Suraksha Parashuram	P	P	P	P	P	P
5.	8009	Gutal Pradnya Kanifnath	P	P	P	P	P	P
6.	8013	Waghmode Ganesh Ankush	P	P	A	P	P	P
7.	8014	Waghmode Sudip Mahadev	P	P	P	P	P	P
8.	8015	Patil Dipali Nagnath	P	P	A	P	P	P
9.	8018	Jagtap Arati Arjun	P	P	P	P	P	P
10.	8019	Bale Vinayajyothi Kirankumar	P	P	A	P	P	P
11.	8021	Bale Anusha Kirankumar	P	P	P	A	P	P
12.	8022	Pawar Kalyani Ashok	P	P	P	P	P	P
13.	8029	Jagtap Snehal Lalasaheb	P	P	P	P	P	P
14.	8030	Dolas Jayashri Siddheshwar	P	P	P	A	P	P
15.	8031	Bansode Priya Annasaheb	P	P	P	P	P	P
16.	8033	Gandhale Nikita Jyotiram	P	P	P	P	A	P
17.	8035	Bhong Ganesh Balu	P	P	P	P	P	P
18.	8036	Nalawade Kuldip Vinod	P	P	A	P	P	P
19.	8038	Bhosale Madhuri Navnath	P	P	P	P	P	P
20.	8039	Pawar Amit Sanjay	P	P	P	P	P	P
21.	8040	Bhujbal Atish Atul	P	P	A	P	P	P
22.	8049	Ghadage Vidya Hanumant	P	P	P	P	P	P
23.	8050	Shaikh Alfiya Aslam	P	P	P	A	P	P
24.	8051	Yadav Onkar Bhausahab	P	P	P	P	A	P
25.	8055	Pathan Arbaj Ayub	P	A	P	P	P	P
26.	8060	Kadam Mahadev Kalyan	P	P	A	P	A	P
27.	8062	Rasal Santosh Bhimrao	P	P	P	P	P	P
28.	8064	Patil Ahilya Duryodhan	P	P	P	P	P	P
29.	8066	Thorat Sakshi Dada	P	P	P	P	P	P
30.	8068	Dhere Samadhan Ajinath	P	P	A	P	P	P
31.	8074	Kumbhar Rushikesh Pandurang	P	P	P	P	P	P
32.	8077	Mane Siddhnath Rajendra	P	P	P	P	P	P
33.	8078	Londhe Prathmesh	P	P	P	A	P	P

		Siddheshwar						
34.	8081	Londhe Samadhan Bhimrao	P	P	P	P	P	P
35.	8090	Balvantrao Pranil Rajendra	P	P	A	P	P	P
36.	8097	Babar Aditya Dattatray	P	P	P	P	P	A
37.	8184	Waghmode Akshay Vishnu	P	P	P	P	P	P
38.	8189	Kalel Pooja Tanaji	P	P	P	P	P	P
39.	8200	Mulani Shannu Kasim	P	P	P	P	P	P
40.	9025	Chaphakanade Nikita Vishwanath	P	A	P	P	P	P
41.	9032	Prajakta Kalidas Markad	P	P	P	P	P	P
42.	9039	Vajale Pratiksha Bandu	P	P	P	P	P	P
43.	9049	Shaikh Saijiya Mubin	P	P	A	P	P	A
44.	9057	Kanche Pooja Bapu	P	P	P	P	P	P
45.	9224	Raut Vidhya Suresh	P	A	P	P	P	P


Subject Teacher


H.O.D


Principal

Head
Department of Physics
Arts, Science & Commerce
College, Indapur, Dist. Pune

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ITSPM'S
Arts, Science and Commerce College, Indapur
Department of Physics
Certificate course in Electric & Electronic Instruments
Attendance Sheet
Academic Year 2022-23

Sr.No.	Roll.No.	Student Name	02/03	03/03	04/03	09/03	10/03	11/03
1.	8001	JAGTAP VRUSHALI SHANKAR	P	P	P	P	P	P
2.	8004	SARADE ARCHANA HANUMANT	P	P	P	P	P	P
3.	8006	SURWASE VISHWATEJ MAHADEV	P	P	P	P	P	P
4.	8008	KARE SURAKSHA PARASHURAM	P	P	P	P	P	P
5.	8009	GUTAL PRADNYA KANIFNATH	P	P	P	P	P	P
6.	8013	WAGHMODE GANESH ANKUSH	P	P	A	P	P	P
7.	8014	WAGHMODE SUDIP MAHADEV	P	P	P	P	P	P
8.	8015	PATIL DIPALI NAGNATH	P	P	A	P	P	P
9.	8018	JAGTAP ARATI ARJUN	P	P	P	P	P	P
10.	8019	BALE VINAYAJYOTHI KIRANKUMAR	P	P	A	P	P	P
11.	8021	BALE ANUSHA KIRANKUMAR	P	P	P	A	P	P
12.	8022	PAWAR KALYANI ASHOK	P	P	P	P	P	P
13.	8029	JAGTAP SNEHAL LALASAHEB	P	P	P	P	P	P
14.	8030	DOLAS JAYASHRI SIDDHESHWAR	P	P	P	A	P	P
15.	8031	BANSODE PRIYA ANNASAHEB	P	P	P	P	P	P
16.	8033	GANDHALE NIKITA JYOTIRAM	P	P	P	P	A	P
17.	8035	BHONG GANESH BALU	P	P	P	P	P	P
18.	8036	NALAWADE KULDIP VINOD	P	P	A	P	P	P
19.	8038	BHOSALE MADHURI NAVNATH	P	P	P	P	P	P
20.	8039	PAWAR AMIT SANJAY	P	P	P	P	P	P
21.	8040	BHUJBAL ATISH ATUL	P	P	A	P	P	P
22.	8049	GHADAGE VIDYA HANUMANT	P	P	P	P	P	P
23.	8050	SHAIKH ALFIYA ASLAM	P	P	P	A	P	P
24.	8051	YADAV ONKAR BHAUSAHEB	P	P	P	P	A	P
25.	8055	PATHAN ARBAJ AYUB	P	A	P	P	P	P
26.	8060	KADAM MAHADEV KALYAN	P	P	A	P	A	P
27.	8062	RASAL SANTOSH BHIMRAO	P	P	P	P	P	P
28.	8064	PATIL AHILYA DURYODHAN	P	P	P	P	P	P
29.	8066	THORAT SAKSHI DADA	P	P	P	P	P	P
30.	8068	DHERE SAMADHAN AJINATH	P	P	A	P	P	P
31.	8074	KUMBHAR RUSHIKESH PANDURANG	P	P	P	P	P	P
32.	8077	MANE SIDDHNATH RAJENDRA	P	P	P	P	P	P
33.	8078	LONDHE PRATHMESH SIDDHESHWAR	P	P	P	A	P	P
34.	8081	LONDHE SAMADHAN BHIMRAO	P	P	P	P	P	P
35.	8090	BALVANTRAO PRANIL	P	P	A	P	P	P

		RAJENDRA						
36.	8097	BABAR ADITYA DATTATRAY	P	P	P	P	P	A
37.	8184	WAGHMODE AKSHAY VISHNU	P	P	P	P	P	P
38.	8189	KALEL POOJA TANAJI	P	P	P	P	P	P
39.	8200	MULANI SHANNU KASIM	P	P	P	P	P	P
40.	9025	CHAPHAKANADE NIKITA VISHWANATH	P	A	P	P	P	P
41.	9032	PRAJAKTA KALIDAS MARKAD	P	P	P	P	P	P
42.	9039	VAJALE PRATIKSHA BANDU	P	P	P	P	P	P
43.	9049	SHAIKH SAJIYA MUBIN	P	P	A	P	P	A
44.	9057	KANCHE POOJA BAPU	P	P	P	P	P	P
45.	9224	RAUT VIDHYA SURESH	P	A	P	P	P	P


Subject Teacher


H.O.D


Principal

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Department of Physics
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College, Indapur, Dist. Pune

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Indapur Taluka Shikshan Prasarak Mandal's,
Arts, Science and Commerce College,
Indapur, Dist. Pune

(Affiliated to Savitribai Phule Pune University, Pune)

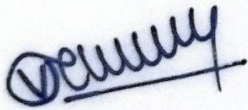


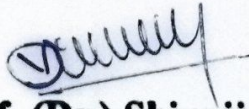
Organized

Certificate Course in Fundamentals of Research

(Academic Year 2022-23)

This is to certify that Jagtap Vrushali Shankar a student from S.Y. B.Sc. Class has actively participated and successfully completed Certificate Course in Fundamentals of Research (4 Credits). The Department of Physics at ITSPM's Arts, Science, and Commerce College in Indapur, District of Pune, is hosting this course from February 16, 2022, to March 11, 2022..


Prof. Dr. Shivaji Veer
Course Coordinator


Prof. (Dr.) Shivaji Veer
IQAC Coordinator

Coordinator, IQAC
Arts, Science & Commerce College
Indapur, Indapur Dist Pune - 413106


Prof. (Dr.) Jiwan Pandurang Sarwade
Principal

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COMMERCE COLLEGE
INDAPUR DIST PUNE



2022-23

**ARTS, SCIENCE AND COMMERCE COLLEGE INDAPUR,
DIST- PUNE**

STUDENTS NOTICE

Date: 05/11/2022

All the students of T.Y.B.Sc. those who have taken admission to the add-on course “ **Milk sampling and its analysis**” are hereby informed that , their regular theory and practicals will be conducted from 09/11/2022 to 18/11/2022. Attendance of all students is compulsory.


Dr. Bhosale R.R.
(Course Incharge)


Head
Department Of Chemistry
Arts, Science & Commerce
College, Indapure, Dist. Pune


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COMMERCE COLLEGE
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ARTS, SCIENCE AND COMMERCE COLLEGE, INDAPUR**DEPARTMENT OF CHEMISTRY****Value Added Course: Milk Sampling and Its Analysis****(Course Credit: 04)**

Sr.No.	Name of the Topics	Number of Lectures
1	Introduction	02
2	Common Dairy Processes	08
3	Milk proteins, Carbohydrates and Vitamins , Milk Products	10
4	Detection of Preservatives & Adulterants, Physicochemical parameters in Milk Sample (Practicals)	20

Chapter I – Introduction**02**

Definition, constituents of milk of different species such as cow, buffalo, goat, etc., Chemical composition of milk of Indian breed and foreign breeds of cow, factor affecting composition of milk, characteristics of milk of different mammals,

Chapter 2- Common Dairy Processes**08**

Physicochemical properties of milk, acidity, pH, density, specific gravity, color and flavor of milk, food and nutritive value of milk. Microbiology of milk, growth of microorganism, stages of growth, product of microbial growth, destruction of microorganisms growth. Cream separation- Basic principles, gravity creaming water dilution and centrifugal creaming method, construction of centrifugal separator, factors affecting percentage of fat, speed of machine, temp. of milk, rate of inflow amount of flushing water formation of separator slime Pasteurization of milk, flow sheet diagram, process receiving milk, preheating filtration, clarification, cooling and storage raw milk, standardization, pasteurization, homogenization, packing and storage, uses of milk.

Chapter 3-Milk proteins, Carbohydrates and Vitamins**10**

Milk proteins- importance of proteins found in the milk-casein, albumin and globulin, composition, nomenclature, properties and uses. ,Carbohydrates- importance of lactose,

classification, properties, nutritive value of lactose use of lactose. ,Vitamins- importance, definition, properties nutritive value of vitamins, Vit-A, Vit-B, B2, B6, B12, Vit-C (Ascorbic acid) & Vitamin-D. ,Food and nutritive value of milk, milk & public health.

Chapter V- Practicals

20

Detection of Common preservatives and Adulterants in milk , Various modes of Adulteration and their detection such as skimming, addition of separated milk, skim milk, added water, Starch and cane sugar. Determination of physicochemical parameters in milk samples.

Learning Objectives:

The students are expected to study

1. Knowing importance of the subject from the point of rural economy.
2. Knowing the composition of milk, its food & nutritive value
3. Understanding the Microbiology of the milk
4. Understanding various preservation and adulterants, various milk proteins and their role for the human body.
5. Knowing various milk products, their composition, manufacture and uses.

References:

- 1: Outline of Dairy Technology- Oxford University press By- Sukumar De. (Edition-1983)
- 2: Dairy Chemistry and Animal Nutrition- M.M. Rai, Kalyani, Publishers, New Delhi 3rd Edition, 1980
- 3: Fundamentals of Dairy Chemistry- B.H. Webb, A.H. Hohnson, J.A. Alford, CBB Publishers and Distributors.
- 4: Milk and Milk Products- C.H. Eckles, H. Macy, Tata McGraw Hikk Publishing Company Ltd.
- 5: Chemistry and Testing of Dairy Products- H.V. Atherton, J.A. New Lander, CBS, Publishers and Distributors.


Dr. Bhosale R.R.
(Course Incharge)


Dr. Bhore J.B
Department Of Chemistry
Arts, Science & Commerce
College, Indapur, Dist. Pune


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Name of Value Added Course : Milk Sampling and Its Analysis

Time Table Value Added Course (Theory) 2022-23

Date	Time	Name of Faculty	Sign.
09/11/2022	2.00 - 3.00	Dr.Bhosale R.R.	
	3.00 - 4.00	Prof. Nalawade P.R.	
	4.00 - 5.00	Prof. Zagade Y.V.	
10/11/2022	2.00 - 3.00	Prof. Nalawade P.R.	
	3.00 - 4.00	Prof. Gound K.B..	
	4.00 - 5.00	Prof. Zagade Y.V.	
11/11/2022	2.00 - 3.00	Dr.Bhosale R.R.	
	3.00 - 4.00	Prof. Nalawade P.R.	
	4.00 - 5.00	Prof. Zagade Y.V.	
12/11/2022	2.00 - 3.00	Dr.Bhosale R.R.	
	3.00 - 4.00	Prof. Nalawade P.R.	
	4.00 - 5.00	Prof. Zagade Y.V.	
13/11/2022	2.00 - 3.00	Dr.Bhosale R.R.	
	3.00 - 4.00	Prof. Nalawade P.R.	
	4.00 - 5.00	Prof. Zagade Y.V.	

(Practicals)

Date	Time	Name of Faculty	Sign.
14/11/2022	2.00 - 6.00	Dr.Bhosale R.R.	
15/11/2022	2.00 - 6.00	Prof. Nalawade P.R.	
16/11/2022	2.00 - 6.00	Prof. Zagade Y.V.	
17/11/2022	2.00 - 6.00	Dr.Bhosale R.R.	
18/11/2022	2.00 - 6.00	Prof. Zagade Y.V.	

Dr. Bhosale R.R.
(Course Incharge)

Dr. Bhore J.B
Head
Department Of Chemistry
Arts, Science & Commerce
College, Indapur, Dist. Pune

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COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE



2022-23

[illegible]

Name of Course : Milk Sampling and Its Analysis

[illegible]

Sr.No	Roll Nos	Name of Students	09/11	10/11	11/11	12/11	13/11	14/11	15/11	16/11	17/11	18/11
53	9230	SUTAR PRITI RAJENDRA	P	P	P	P	P	P	P	P	P	A
54	9232	CHAVAN NILESH SANJAY	P	P	P	P	A	P	P	P	P	P
55	9234	LAVAND ASHOK GITAJI	P	P	P	P	P	A	P	A	P	P
56	9235	ATTAR LAJINA KHALIL	A	P	P	P	P	A	P	A	P	P
57	9236	MISAL VAIBHAV SATISH	A	P	P	P	P	P	P	A	P	P
58	9237	JAGTAP VISHVARAJ TANAJI	P	P	P	P	P	P	P	P	P	P
59	9047	DEOKAR SNEHAL ANIL	P	P	P	P	P	A	P	P	P	P
60	9048	TEJAS GANPAT GADE	P	P	P	P	P	P	P	P	P	P
61	9050	KATE AJINKYA DATTATR	P	P	P	P	P	P	P	P	P	P
62	9051	SARADE MADHURI HANUM	P	P	P	P	P	P	P	P	P	P
63	9052	MASKE MAYURI TANAJI	P	A	P	A	P	P	P	A	P	P
64	9053	DONGARE CHETAN DILIP	A	A	P	P	P	P	P	P	P	P
65	9054	KADAM PRATIK ANIL	P	P	A	P	P	P	P	P	P	P
66	9055	SALUNKHE ROHIT SURESH	P	P	P	P	A	P	P	P	P	A

Boody



ARTS, SCIENCE AND COMMERCE COLLEGE INDAPUR

Name of Value Added Course : Milk Sampling and Its

Analysis

COURSE COMPLETION REPORT

The add-on course “ **Milk Sampling and Its Analysis**” has conducted from 09/11/2022 to 18/11/2022 and been successfully completed. Total 66 students were admitted for course. The students understand about milk, their sampling, major and minor constituents, how to take precautions about storage and handling of milk, Physical properties of different types of milk like Homogenized milk, Pasteurized milk, Standardized milk, Sterilized milk, Condensed milk, flavoured milk etc. And their manufacturing processes. Similarly students also the information about the detection of preservatives and adulterants in milk.

The milk is daily used in each home to home in society, so the course will be most useful for students. After completion of this course , certificates are distributed to all participated students.


Head
Department Of Chemistry
Arts, Science & Commerce
College, Indapue, Dist. Pune


Dr. Bhosale R.R.
(Course Incharge)





Indapur Taluka Shikshan Prasarak Mandal's
Arts, Science and Commerce College, Indapur, Pune
“Value Added Course Completion Certificate ”

Certificate of Appreciation

This is to certify that **Mr./Ms. Mr./Ms. SHENDE NIKITA GOPAL**, T.Y.B.Sc. Class of Arts, Science and Commerce College, Indapur has actively participated in Add-On Course “ **Milk Sampling and Its Analysis**” organized by Department of Chemistry from 9/11 2022 to 18/11/2022.


Dr. Rajendra Bhosale
Course Incharge


Dr. Bhore J.B.
Head Dept. of Chemistry
Department Of Chemistry
Arts, Science & Commerce
College, Indapue, Dist. Pune


Dr. Jiwan Sarwade
Principal

SYLLABUS

Certificate course in Industrial Skills

(Lectures 40)

Objectives

1. Develop and demonstrate depth and breadth of knowledge in chromatography
2. To Integrate and impart practical knowledge to the students and evaluate their potential
3. To teach different analytical techniques to the students
4. To enhance employability of the students by nurturing CV writing skill and interview preparation

Module 1: Spectroscopic techniques (Lectures 6)

Spectral analysis using IR, UV, H1NMR, CMR and GCMS.

Module 2: Chromatographic techniques (Lectures 3):

Different chromatographic techniques include, TLC, Column chromatography, Paper chromatography, HPLC, GC, Ion exchange chromatography etc.

Module 3: Solvent extraction and Volumetric analysis (Lectures 3):

Extraction of samples 1) solid in liquid mixtures and 2) liquid in liquid mixtures

Module 4: Other Techniques (Lectures 3):

To teach Simple distillation, Fractional distillation, Crystallization, Sublimation

Module 5] Practical's (25 L):

1. Identifications of functional groups of the compounds by the TLC technique
2. Functional group conversion on micro scale and their purification
3. Determinations of structures of the synthesized compounds by using UV, IR, NMR techniques.
4. Nanomaterial Synthesis and Characterizations.
5. Purification of Compounds by a) Colum chromatography b) Distillation c) Sublimation d) Recrystallization.

References:

1. Instrumental Methods of Chemical Analysis -B.K Sharma
2. Organic spectroscopy -Y.R Sharma

3. A Text book of Pharmaceutical Analysis -Kerrenth A. Connors
4. Vogel's Textbook of Qualitative Chemical Analysis -A.I. Vogel
5. Practical Pharmaceutical Chemistry -A.H. Beckett and J.B. Stenlake
6. Organic Chemistry -I. L. Finar
7. Organic spectroscopy -William Kemp
8. Basic tests for Pharmaceutical substances –WHO (1988)
9. Basic tests for Pharmaceutical substances –WHO (1991)
10. How to practice GMP's –P.P.Sharma4.The Drugs and Cosmetic Act 1940 –Vijay Malik

Program Learning Outcomes of the Certificate course in Industrial Skills

- CO-1: To understand basic chromatographic techniques
- CO-2: To know hands on experience of spectral analysis
- CO-3: To understand solvent extraction and volumetric analysis techniques
- CO-4: To learn other techniques like distillation, sublimation and crystallization of solids
- CO-5 To understand basic reactions of functional group interconversion




Head
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Arts, Science & Commerce
College, Indapue, Dist. Pune




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**ARTS, SCIENCE AND COMMERCE COLLEGE INDAPUR,
DIST- PUNE**

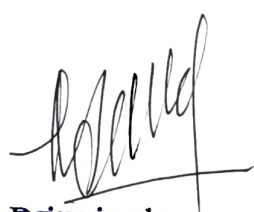
STUDENTS NOTICE

Date: 23/12/2022

All the students of M.Sc Chemistry those who have taken admission to the value added course “ **Industrial Skill**” are hereby informed that,their regular theory and practicals will be conducted from 02 Jan 2023 to 12 Jan 2023. Attendance of all students is compulsory.


Dr. Shinde M.P
(Course Incharge)

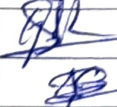
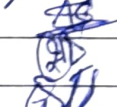

Head
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College, Indapure, Dist. Pune


Principal
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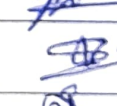


Name of Add-On Course : Industrial Skill

Time Table Value Added Course (Theory)2022-23

Date	Time	Name of Faculty	Sign.
02/1/2022	2.00 - 3.00	<u>Prof.Kharat S.D</u>	
	3.00 - 4.00	<u>Dr.Shinde M.P</u>	
	4.00 - 5.00	<u>Prof.Khopade S.A</u>	
03/1/2022	2.00 - 3.00	<u>Prof.Kharat S.D</u>	
	3.00 - 4.00	<u>Dr.Shinde M.P</u>	
	4.00 - 5.00	<u>Prof.Khopade S.A</u>	
04/1/2022	2.00 - 3.00	<u>Prof.Kharat S.D</u>	
	3.00 - 4.00	<u>Dr.Shinde M.P</u>	
	4.00 - 5.00	<u>Prof.Khopade S.A</u>	
05/1/2022	2.00 - 3.00	<u>Prof.Kharat S.D</u>	
	3.00 - 4.00	<u>Dr.Shinde M.P</u>	
	4.00 - 5.00	<u>Prof.Khopade S.A</u>	
06/1/2022	2.00 - 3.00	<u>Prof.Kharat S.D</u>	
	3.00 - 4.00	<u>Dr.Shinde M.P</u>	
	4.00 - 5.00	<u>Prof.Khopade S.A</u>	

(Practicals)

Date	Time	Name of Faculty	Sign.
07/1/2022	2.00 - 6.00	<u>Prof.Kharat S.D</u>	
09/1/2022	2.00 - 6.00	<u>Dr.Shinde M.P</u>	
10/1/2022	2.00 - 6.00	<u>Prof.Khopade S.A</u>	
11/1/2022	2.00 - 6.00	<u>Prof.Kharat S.D</u>	
12/1/2022	2.00 - 6.00	<u>Dr.Shinde M.P</u>	


Dr.Shinde M.P.
 (Course Incharge)


 Dr. Bhore J.B.
 HOD


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Head
 Department Of Chemistry
 Arts, Science & Commerce
 College, Indapure, Dist. Pune



LIST OF ADMITTED STUDENTS**Name of Value Added Course : Industrial Skill(2022-23)**

Sr.No	Roll No.	Name of Students
1	2801	AHIVALE SANTOSH VITTHAL
2	2802	AWATE KOMAL ANKUSH
3	2803	BANSODE MONALI BALU
4	2804	BARAVKAR ABOLI BANDU
5	2805	BHUJABAL ANIKET MARUTI
6	2806	BUDHAVALA VARSHA VITTHAL
7	2807	CHAVAN PRASHANT MAHADEV
8	2808	CHORMALE VAIBHAV POPAT
9	2809	DESHMUKH MAYURI NETAJI
10	2810	DHOBALE PAYAL BHARAT
11	2811	GADHAVE AISHVARYA ANANDRAO
12	2812	GAWADE AMRUTA SUDHAKAR
13	2813	GHADAGE HARSHADA DATTATRAY
14	2814	GODASE SAPANA RAJENDRA
15	2815	KADALE POOJA BALASAHEB
16	2816	KHARTODE ROHIT SHIVAJI
17	2817	KIRAN HANUMANT NALAWADE
18	2818	MANE RANJEET ARUN
19	2819	MULANI AMIR BASHIR
20	2820	PATIL POOJA MAHADEV
21	2821	PATIL PUJA KHANDERAO
22	2822	PATIL SAGAR JANARDHAN
23	2823	PAVANE SAMADHAN ANKUSH
24	2824	PAWAR ASHISH GAHININATH
25	2825	PAWAR RUTUJA ANKUSH
26	2301	PAWAR VIJAY RAMDAS
27	2302	PONDKULE RANJIT DILIP
28	2303	SHELAMKAR SURAJ SOMNATH
29	2304	SHEHDE VIKAS CHANDRAKANT
30	2305	SIRSAT GANESH SOPAN
31	2306	SUTAR MAULI HANUMANT
32	2307	GAIKWAD PRANITA SANJAY

Sr.No	Roll No.	Name of Students
33	2201	KHARAT HANUMANT NAMDEV
34	2202	SHEJAL PRATIKSHA SHIVAJI
35	2203	YADAV SNEHA SHIVAJI
36	2701	BHOSALE PRIYA BANDU
37	2702	GAIKWAD ADITYA SANTOSH
38	2703	AIWALE SHIVLING SHANKAR
39	2704	WAGHMODE SUPRIYA RAMESH
40	2705	KADAM LAKHAN DATTATRAY
41	2706	BHOSALE VAISHALI SURESH
42	2707	DONGARE SAGAR UDDHAV
43	2708	MORE ASHWINI NAVNATH
44	2709	WAGHMODE ADESH DEVIDAS
45	2710	KOTWALE NANA SUNIL
46	2711	SARJE VISHAL ASHOK
47	2712	KHANDEKAR GANESH SOMNATH
48	2713	KECHE UMESH GOVARDHAN
49	2714	PHULE PRITI CHANDRAKANT
50	2715	KHANDAGALE VAISHNVI PANDURANG
51	2716	MISAL TUKARAM CHAGAN
52	2717	SADEKAR POONAM SANTOSH
53	2718	SURVASE RAHUL LAXMAN
54	2719	PATIL SUSHANT PANDIT
55	2720	BHANGE YOGESH SHARAD
56	2721	YELEKAR VANITA LAXMAN
57	2722	DESHMUKH ROHIT SHIVAJI
58	2723	ARKILE CHAITANYA SANTOSH
59	2724	JAGTAP PRAJAKTA VILAS
60	2725	GAIKWAD AKSHAY SUDAM
61	2726	PAREKAR RAHUL SHIVAJI
62	2727	SANGALE KIRAN BABAJI
63	2728	LAVATE RUPESH RAJENDRA
64	2729	NAIKNANWARE ROHIT SURYAKANT
65	2730	RANWARE SONALI RAJENDRA
66	2731	KARANDE LAHU BALASAHEB
67	2732	PAREKAR SNEHA DASHRATH
68	2733	SHINDE KRUSHNA LAXMAN
69	2734	SHENDAGE PRAVIN BAPURAO

LIST OF ADMITTED STUDENTS

Name of Value Added Course : Industrial Skill(2022-23)

1	2801	AHIVALE SANTOSH VITTHAL	02/1	03/1	04/1	05/1	06/1	07/1	09/1	10/1	11/1	12/1
2	2802	AWATE KOMAL ANKUSH	P	P	P	P	P	P	A	P	P	P
3	2803	BANSODE MONALI BALU	P	P	P	P	P	P	P	P	P	P
4	2804	BARAVKAR ABOLI BANDU	A	P	P	A	P	P	P	A	P	P
5	2805	BHUJABAL ANIKET MARUTI	P	P	A	P	P	A	P	P	P	A
6	2806	BUDHAVALA VARSHA VITTHAL	P	P	P	P	A	P	P	P	A	P
7	2807	CHAVAN PRASHANT MAHADEV	P	A	P	P	P	P	P	P	P	P
8	2808	CHORMALE VAIBHAV POPAT	A	A	P	P	P	P	P	P	P	P
9	2809	DESHMUKH MAYURI NETAJI	A	P	P	A	P	A	P	A	P	P
10	2810	DHOBAL PAYAL BHARAT	P	P	P	P	P	P	P	P	P	P
11	2811	GADHAVE AISHVARYA ANANDRAO	P	P	A	P	P	P	A	P	P	P
12	2812	GAWADE AMRUTA SUDHAKAR	P	A	P	P	P	P	P	P	P	P
13	2813	GHADAGE HARSHADA DATTATRAY	P	P	P	P	A	P	P	P	P	P
14	2814	GODASE SAPANA RAJENDRA	P	P	P	P	P	P	P	P	A	P
15	2815	KADALE POOJA BALASAHEB	P	P	P	A	A	P	P	P	P	P
16	2816	KHARTODE ROHIT SHIVAJI	P	P	P	P	P	P	P	A	P	P
17	2817	KIRAN HANUMANT NALAWADE	P	P	P	P	P	P	P	P	P	P
18	2818	MANE RANJEET ARUN	A	P	P	P	A	P	P	P	P	P

LIST OF ADMITTED STUDENTS

Name of Value Added Course : Industrial Skill(2022-23)

Sr.No	Roll Nos	Name of Students	02/1	03/1	04/1	05/1	06/1	07/1	09/1	10/1	11/1	12/1
19	2819	MULANI AMIR BASHIR	P	P	P	P	P	A	P	P	P	A
20	2820	PATIL POOJA MAHADEV	P	P	P	P	P	P	P	P	P	P
21	2821	PATIL PUJA KHANDERAO	P	P	P	P	P	A	P	A	A	P
22	2822	PATIL SAGAR JANARDHAN	P	P	P	P	P	P	P	P	P	P
23	2823	PAVANE SAMADHAN ANKUSH	A	P	P	P	P	P	P	P	P	P
24	2824	PAWAR ASHISH GAHININATH	P	A	P	A	P	P	A	P	P	A
25	2825	PAWAR RUTUJA ANKUSH	P	P	P	P	P	P	P	P	P	P
26	2301	PAWAR VIJAY RAMDAS	P	P	P	P	P	P	P	A	P	P
27	2302	PONDKULE RANJIT DILIP	P	P	P	P	P	P	P	P	P	P
28	2303	SHELAMKAR SURAJ SOMNATH	P	P	P	P	A	P	A	P	P	P
29	2304	SHENDE VIKAS CHANDRAKANT	P	P	P	P	P	P	P	P	P	A
30	2305	SIRSAT GANESH SOPAN	P	P	P	P	P	A	P	P	P	A
31	2306	SUTAR MAULI HANUMANT	P	P	P	P	P	P	P	A	P	P
32	2307	GAIKWAD PRANITA SANJAY	P	P	P	P	A	A	P	P	P	P
33	2201	KHARAT HANUMANT NAMDEV	P	A	A	P	P	P	P	P	P	P
34	2202	SHEJAL PRATIKSHA SHIVAJI	P	P	P	P	P	P	P	P	P	A
35	2203	YADAV SNEHA SHIVAJI	A	P	P	P	P	A	P	P	P	P

LIST OF ADMITTED STUDENTS

Name of Value Added Course : Industrial Skill(2022-23)

Sr.No	Roll Nos	Name of Students	02/1	03/1	04/1	05/1	06/1	07/1	09/1	10/1	11/1	12/1
36	2701	BHOSALE PRIYA BANDU	P	P	A	P	P	P	P	P	A	A
37	2702	GAIKWAD ADITYA SANTOSH	P	A	P	P	A	P	P	P	P	P
38	2703	AIWALE SHIVLING SHANKAR	A	P	P	P	P	P	P	P	P	P
39	2704	WAGHMODE SUPRIYA RAMESH	P	P	P	P	P	P	P	A	P	P
40	2705	KADAM LAKHAN DATTATRAY	P	P	P	A	P	P	P	P	P	P
41	2706	BHOSALE VAISHALI SURESH	P	A	P	P	P	P	P	P	P	P
42	2707	DONGARE SAGAR UDDHAV	P	P	P	P	P	P	P	P	P	P
43	2708	MORE ASHWINI NAVNATH	A	P	A	P	P	P	P	P	P	P
44	2709	WAGHMODE ADESH DEVIDAS	P	P	P	P	P	P	P	P	P	P
45	2710	KOTWALE NANA SUNIL	P	P	P	A	P	A	P	P	P	P
46	2711	SARJE VISHAL ASHOK	P	P	P	P	P	P	P	P	A	P
47	2712	KHANDEKAR GANESH SOMNATH	P	P	P	P	A	P	P	P	A	P
48	2713	KECHE UMESH GOVARDHAN	P	P	A	P	P	P	A	A	P	P
49	2714	PHULE PRITI CHANDRAKANT	A	P	P	P	P	P	P	P	P	P
50	2715	KHANDAGALE VAISHNVI PANDURANG	P	P	P	P	P	P	P	P	P	P
51	2716	IMISAL TUKARAM CHAGAN	P	A	P	P	P	P	P	P	P	P
52	2717	SADEKAR POONAM SANTOSH	P	P	P	A	P	P	P	A	A	P

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Indapur Taluka Shikshan Prasarak Mandal's
Arts, Science and Commerce College, Indapur, Pune
"Value Added Course Completion Certificate"



Certificate of Appreciation

This is to certify that Mr./Ms. _____, M.Sc Chemistry, Class of Arts, Science and Commerce College, Indapur has actively participated in Add-On Course " Industrial Skills " organized by Department of Chemistry from 2nd Jan 2023 to 12th Jan 2023.


Dr. Mahadeo Shinde
Course Incharge


Dr. Bhore J.B.
Head, Dept. of Chemistry
Arts, Science & Commerce
College, Indapur, Dist. Pune


Dr. Jivan Sarvade
PRINCIPAL
ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-411010 DIST-PUNE

ARTS, SCIENCE AND COMMERCE COLLEGE INDAPUR

Name of Add-On Course: Industrial Skills

COURSE COMPLETION REPORT

The add-on course "Industrial Skill" has conducted from 2nd Jan 2023 to 12th Jan 2023 and been successfully completed. Total 69 students were admitted for course. Students understand basic chromatographic techniques to know hands on experience of spectral analysis. To understand solvent extraction and volumetric analysis techniques. To learn other techniques like distillation, sublimation and crystallization of solids. To understand basic reactions of functional group interconversion. The industrial skill is most important in society, so the course will be most useful for students. After completion of this course, certificates are distributed to all participated students.


Dr. Shinde M.P
(Course Incharge)




Dr. Bhore J.B
Head
Department Of Chemistry
Arts, Science & Commerce
College, Indapue, Dist. Pune

Indapur Taluka Shikshan Prasarak Mandals
Arts, Science and Commerce College, Indapur Dist. Pune
Department of Zoology
Certificate Course in Bird Diversity
Syllabus
From Academic Year 2022-23

- 1) Name Of the Teacher – Asst. Prof. Sonam Pushparaj Jamdade
- 2) No. of the Period required-30 hours
- 3) Number of Theory periods-12
- 4) Number of practical Period -18
- 5) Brief syllabus of the subject-

*Definition of diversity, habit and habitats of birds.

*External morphology of bird.

*Identification keys of Birds.

*Identification of Birds.

*How to observe birds, Equipment used to observe the bird.

*Nesting of Birds.

*Photography techniques used.

Outcome of Course-Indapur tashil has been enriched with wetland area at Bhigwan as diksal and at the bank of Ujani reservoir. The migration birds visit Indapur areas. These birds can be so that we can understand avian diversity

Sonam



Sonam
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ITSPM'S

Arts, Science and Commerce College , Indapur

Department Of Zoology

Certificate Course in Bird Diversity

2022-23

Timetable

Time	Thursday	Friday	Saturday
1 pm To 2 pm	Theory	Theory	-
1 pm To 5 Pm	-	-	Practical



HOD
Dr. J. P. Sarwade
M.Sc., Ph.D., FZSI
Head
Department of Zoology,
Arts, Science & Commerce College,
Indapur, Dist. Pune - 413106





Principal
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ITSPM'S

Arts, Science And Commerce College, Indapur

Department Of Zoology

Notice

Date-25/08/2022

All the Student who registered their names to 'Certificate Course in Bird Diversity' are hereby informed that their lectures will be started on Thursday, 02/09/2022 in Room No. 78 at 1 pm to 2 pm. It is compulsory to attend the lectures of value added course for getting desired credit.


HOD
Dr. J. P. Sarwade
M.Sc., Ph.D., FZSI
Head
Department of Zoology,
Arts, Science & Commerce College,
Indapur, Dist. Pune - 413106


Principal
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ITSPM'S

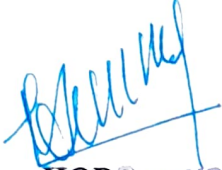
Arts, Science and Commerce College, Indapur

Department Of Zoology

Notice

Date-25/08/2022

All the Student who registered their names to 'Certificate Course in Bird Diversity' are hereby informed that their Practical's will be started on Saturday, 03/09/2022 in Room No.59 at 1 pm to 5 pm. It is compulsory to attend the Practical's of value added course for getting desired credit.


Dr. J. P. Sarwade
M.Sc., Ph.D., FZSI
Head
Department of Zoology,
Arts, Science & Commerce College,
Indapur, Dist. Pune - 413106


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ITSPM'S

Arts, Science And Commerce College, Indapur

Department of Zoology

Certificate course in Bird Diversity

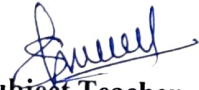
List of Registered Students

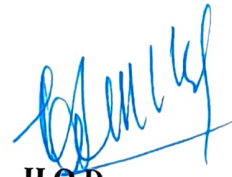
Academic Year 2022-23

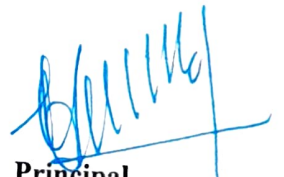
Sr.No.	Roll No.	Name Of the student	Class
1.	8073	MISAL MOHINI POPAT	S.Y.B.Sc.
2.	8075	HEGADE PRANALI RAMESH	S.Y.B.Sc.
3.	8076	SURYAWANSHI SIDDHI JOTIRAM	S.Y.B.Sc.
4.	8079	KHARAT AISHWARYA NITIN	S.Y.B.Sc.
5.	8080	GAIKWAD SAKSHI SAMADHAN	S.Y.B.Sc.
6.	8082	KURDE SHREYASH SUDAM	S.Y.B.Sc.
7.	8083	KUMBHAR SNEHAL BAPU	S.Y.B.Sc.
8.	8085	SHENDE AMRUTA BITTU	S.Y.B.Sc.
9.	8086	SHENDE PRATIKSHA RAJARAM	S.Y.B.Sc.
10.	8087	PAWAR SHUBHANGI SHRIKANT	S.Y.B.Sc.
11.	8088	NALAWADE ASHA VASANT	S.Y.B.Sc.
12.	8089	DEOKAR OMKAR SANTOSH	S.Y.B.Sc.
13.	8091	ATPADKAR SHITAL VITTHAL	S.Y.B.Sc.
14.	8092	FARADE SAMADHAN PANDHARINATH	S.Y.B.Sc.
15.	8093	KHABALE PRANALI DHANAJI	S.Y.B.Sc.
16.	8094	BHOSALE SAI RAJENDRA	S.Y.B.Sc.
17.	8095	DEVKAR RAJASHRI ARUN	S.Y.B.Sc.
18.	8096	SATAV GAURI DNYANESHWAR	S.Y.B.Sc.

19.	8098	METE AJAY LAXMAN	S.Y.B.Sc.
20.	8181	MARKAD RUTUJA TANAJI	S.Y.B.Sc.
21.	8182	PATOLE RUPALI RAMCHANDRA	S.Y.B.Sc.
22.	8183	THORAT RUSHIKESH RAMESH	S.Y.B.Sc.
23.	8185	BHONG VISHAL PANDURANG	S.Y.B.Sc.
24.	8186	BHONG GAURAV SANJAY	S.Y.B.Sc.
25.	8187	RAUT RANJIT RAJKUMAR	S.Y.B.Sc.
26.	8188	VYAWAHARE PRAGATI VITTHAL	S.Y.B.Sc.
27.	8190	PAWASE VIVEK NAMDEV	S.Y.B.Sc.
28.	8191	BANSUDE DIPALI RAMAKANT	S.Y.B.Sc.
29.	8192	KALE RUSHIKESH SATISH	S.Y.B.Sc.
30.	8193	SHENDE YASH RAJKUMAR	S.Y.B.Sc.
31.	8194	MARKAD SAKSHI TUKARAM	S.Y.B.Sc.
32.	8195	BHONG SWAPNALI SURESH	S.Y.B.Sc.
33.	8196	GAIKWAD RAJU BALU	S.Y.B.Sc.
34.	8197	GAWAND SAURABH RAMESH	S.Y.B.Sc.
35.	8198	MARKAD ASHVINI SHIVAJI	S.Y.B.Sc.
36.	8199	MARADE PRITI SAMPAT	S.Y.B.Sc.
37.	8204	GHANWAT NAVNATH HANUMANT	S.Y.B.Sc.
38.	8205	BHONG ADVET DATTATRAY	S.Y.B.Sc.
39.	8206	BORATE SAKSHI SURESH	S.Y.B.Sc.
40.	8207	SHINDE GAURI BHARAT	S.Y.B.Sc.
41.	8208	MARKAD SONALI DADASAHEB	S.Y.B.Sc.
42.	8209	AATAR MUSKAN HUSEN	S.Y.B.Sc.
43.	8210	MASAL RUTUJA SANTOSH	S.Y.B.Sc.
44.	8211	KASHID NIKITA AJINATH	S.Y.B.Sc.
45.	8212	SHINDE RUTUJA SANJAY	S.Y.B.Sc.

46.	8214	THAVARE LAXMI DHANAJI	S.Y.B.Sc.
47.	8215	SHINDE TEJAS VITTHAL	S.Y.B.Sc.
48.	8216	ZOL CHAITANYA SANTOSH	S.Y.B.Sc.
49.	8217	CHAVAN SHAMBHURAJ ASHOK	S.Y.B.Sc.
50.	8218	YADAV RUTURAJ JAYWANT	S.Y.B.Sc.
51.	8219	WAGHMODE PALLAVI ARJUN	S.Y.B.Sc.
52.	8220	TARANGE PAYAL BHARAT	S.Y.B.Sc.
53.	8221	NARALE PRATIKSHA TANAJI	S.Y.B.Sc.
54.	8222	ALISHA RAJMAHMAD BAGWAN	S.Y.B.Sc.
55.	8224	TAMBAVE ADITAY DHONDIRAM	S.Y.B.Sc.


Subject Teacher


H.O.D.
Dr. J. P. Sarwade
M.Sc., Ph.D., FZSI
Head
Department of Zoology,
Science & Commerce College,
Indapur, Dist. Pune - 413106


Principal
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ITSPM'S

Arts, Science and Commerce College, Indapur

Department of Zoology

Certificate course in Bird Diversity

Attendance Sheet

Academic Year 2023-24

Sr.No.	Roll.No	Student Name	01/09	07/09	08/09	14/09	15/09	21/09
1.	8026	GHADGE POONAM BHAUSAHEB	P	P	P	P	P	P
2.	8027	BOLGAD ARUN GAJENDRA	P	P	P	P	P	P
3.	8028	GHADAGE DHIRAJ VILAS	P	P	P	P	P	P
4.	8029	PAWAR RUSHIKESH NANASAHEB	P	P	P	P	P	P
5.	8030	MOHITE SAURABH SUNIL	P	P	P	P	P	P
6.	8033	KALE RUTURAJ TANAJI	P	A	P	P	P	P
7.	8034	LOKARE KOMAL KUBER	P	P	P	P	P	P
8.	8036	GAIKWAD PRAJAKTA SUDHAKAR	P	P	P	P	P	P
9.	8041	LOKHANDE RENUKA UMESH	P	P	P	P	P	P
10.	8042	RAUT RUTUJA CHANDRAKANT	P	P	P	A	P	P
11.	8044	THORAT DIPTI DIPAK	P	P	P	P	P	P
12.	8045	LASHKAR SAKSHI SOMNATH	P	P	P	P	P	P
13.	8046	BHOSALE SHUBHAM DATTATRAY	P	P	P	P	P	P
14.	8047	MULANI TANUJA MUNEER	P	A	P	P	P	P
15.	8048	SHINDE DIPALI MOHAN	P	P	P	P	P	P
16.	8049	GALANDE ANJALI BALASAHEB	P	P	P	A	P	P
17.	8050	VYAVAHARE ATUL SUBRAO	P	P	P	P	P	P
18.	8051	SHID SHITAL SARJERAO	P	P	P	P	P	P
19.	8052	DHAVAL SWAPNIL SAUDAGAR	P	P	P	P	P	P
20.	8053	PATIL ANKITA SHRIKRUSHNA	P	P	P	P	P	P
21.	8055	DHUDUKNALE DHANRAJ TANAJI	P	P	P	P	P	P
22.	8057	KUBADE ROHINI BAPURAO	P	P	A	P	P	P
23.	8060	DHAVAL ASHOK RAGHUNATH	P	P	P	P	P	P
24.	8061	DHUKU SUJAL SHAHAJI	P	P	P	A	P	P
25.	8063	SALUNKHE PREMRAJ KUMAR	P	P	P	P	P	P
26.	8065	PISAL SHRADDHA HANUMANT	P	A	P	P	P	P
27.	8066	MAHADIK TANMAY MAHADEV	P	P	P	P	P	A
28.	8067	LOKARE VISHAL JAYSING	P	P	P	P	P	P
29.	8068	KHABALE SAKSHI DHANAJI	P	A	P	P	P	P
30.	8069	PAWAR SAYALI CHANDRAKANT	P	P	P	P	P	P

31.	8070	NALAWADE JYOTI NAVANATH	P	P	P	P	P	P
32.	8072	KHABALE RAJANI KAILAS	P	P	P	P	A	P
33.	8073	NALAWADE PORNIMA KISAN	P	P	P	A	P	P
34.	8074	NALAWADE KAJAL BHUJANG	P	P	P	P	P	P
35.	8075	PANDIT SURAJ SATISH	P	P	A	P	P	P
36.	8076	MANE NIRJARA RAMESH	P	P	P	P	P	P
37.	8077	SHAIKH SANIYA SHAFIK	P	P	P	P	P	P
38.	8079	GHODAKE NIKITA ASHOK	P	P	P	P	P	P
39.	8081	JADHAV SAYALI SUBHASH	P	P	P	P	P	P
40.	8083	JAGTAP SHUBHANGI NILESH	P	A	P	P	P	P
41.	8084	SHAIKH ALISHA ASLAM	P	P	P	P	P	P
42.	8086	PISE KIRAN DEVIDAS	P	P	P	P	P	P
43.	8087	DEVHARE TEJAS DAGADU	P	P	P	A	P	P
44.	8088	BHANDALKAR SHITAL SHIVAJI	P	A	P	P	P	P
45.	8091	KASHID SAURABH SOMNATH	P	P	P	P	P	P
46.	8183	BARAL YOGITA NARAYAN	P	P	P	P	P	P
47.	8184	BHONG SAKSHI RAJU	P	P	A	P	P	P
48.	8185	KACHARE ASMITA SOPAN	P	P	P	A	P	P
49.	8187	THOKALE VISHVATEJ SUNIL	P	A	P	P	P	P
50.	8188	KSHIRSAGAR PHULAN RAMKRUSHANA	P	P	P	P	P	P


Subject Teacher


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INDAPUR, DIST. PUNE



ITSPM'S

Arts, Science and Commerce College, Indapur

Department of Zoology

Certificate course in Bird Diversity

Attendance Sheet

Academic Year 2023-24

Sr.No.	Roll.No	Student Name	22/09	29/09	05/10	06/10	12/10	13/10
1.	8026	GHADGE POONAM BHAUSAHEB	P	P	P	P	P	P
2.	8027	BOLGAD ARUN GAJENDRA	P	P	P	P	P	P
3.	8028	GHADAGE DHIRAJ VILAS	P	P	P	P	P	P
4.	8029	PAWAR RUSHIKESH NANASAHEB	P	P	P	P	P	P
5.	8030	MOHITE SAURABH SUNIL	P	P	P	P	P	P
6.	8033	KALE RUTURAJ TANAJI	P	A	P	P	P	P
7.	8034	LOKARE KOMAL KUBER	P	P	P	P	P	P
8.	8036	GAIKWAD PRAJAKTA SUDHAKAR	P	P	P	P	P	P
9.	8041	LOKHANDE RENUKA UMESH	P	P	P	P	P	P
10.	8042	RAUT RUTUJA CHANDRAKANT	P	P	P	A	P	P
11.	8044	THORAT DIPTI DIPAK	P	P	P	P	P	P
12.	8045	LASHKAR SAKSHI SOMNATH	P	P	P	P	P	P
13.	8046	BHOSALE SHUBHAM DATTATRAY	P	P	P	P	P	P
14.	8047	MULANI TANUJA MUNEER	P	A	P	P	P	P
15.	8048	SHINDE DIPALI MOHAN	P	P	P	P	P	P
16.	8049	GALANDE ANJALI BALASAHEB	P	P	P	A	P	P
17.	8050	VYAVAHARE ATUL SUBRAO	P	P	P	P	P	P
18.	8051	SHID SHITAL SARJERAO	P	P	P	P	P	P
19.	8052	DHAVAL SWAPNIL SAUDAGAR	P	P	P	P	P	P
20.	8053	PATIL ANKITA SHRIKRUSHNA	P	P	P	P	P	P
21.	8055	DHUDUKNALE DHANRAJ TANAJI	P	P	P	P	P	P
22.	8057	KUBADE ROHINI BAPURAO	P	P	A	P	P	P
23.	8060	DHAVAL ASHOK RAGHUNATH	P	P	P	P	P	P
24.	8061	DHUKE SUJAL SHAHAJI	P	P	P	A	P	P
25.	8063	SALUNKHE PREMRAJ KUMAR	P	P	P	P	P	P
26.	8065	PISAL SHRADDHA HANUMANT	P	A	P	P	P	P
27.	8066	MAHADIK TANMAY MAHADEV	P	P	P	P	P	A
28.	8067	LOKARE VISHAL JAYSING	P	P	P	P	P	P
29.	8068	KHABALE SAKSHI DHANAJI	P	A	P	P	P	P
30.	8069	PAWAR SAYALI CHANDRAKANT	P	P	P	P	P	P

31.	8070	NALAWADE JYOTI NAVANATH	P	P	P	P	P	P
32.	8072	KHABALE RAJANI KAILAS	P	P	P	P	A	P
33.	8073	NALAWADE PORNIMA KISAN	P	P	P	A	P	P
34.	8074	NALAWADE KAJAL BHUJANG	P	P	P	P	P	P
35.	8075	PANDIT SURAJ SATISH	P	P	A	P	P	P
36.	8076	MANE NIRJARA RAMESH	P	P	P	P	P	P
37.	8077	SHAIKH SANIYA SHAFIK	P	P	P	P	P	P
38.	8079	GHODAKE NIKITA ASHOK	P	P	P	P	P	P
39.	8081	JADHAV SAYALI SUBHASH	P	P	P	P	P	P
40.	8083	JAGTAP SHUBHANGI NILESH	P	A	P	P	P	P
41.	8084	SHAIKH ALISHA ASLAM	P	P	P	P	P	P
42.	8086	PISE KIRAN DEVIDAS	P	P	P	P	P	P
43.	8087	DEVHARE TEJAS DAGADU	P	P	P	A	P	P
44.	8088	BHANDALKAR SHITAL SHIVAJI	P	A	P	P	P	P
45.	8091	KASHID SAURABH SOMNATH	P	P	P	P	P	P
46.	8183	BARAL YOGITA NARAYAN	P	P	P	P	P	P
47.	8184	BHONG SAKSHI RAJU	P	P	A	P	P	P
48.	8185	KACHARE ASMITA SOPAN	P	P	P	A	P	P
49.	8187	THOKALE VISHVATEJ SUNIL	P	A	P	P	P	P
50.	8188	KSHIRSAGAR PHULAN RAMKRUSHANA	P	P	P	P	P	P


Subject Teacher


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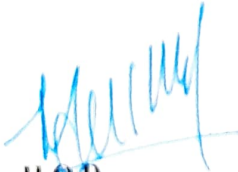


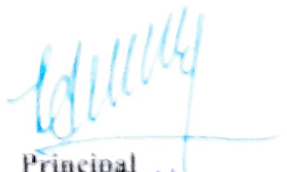
ITSPM'S
Arts, Science and Commerce College, Indapur
Department of Zoology
Certificate course in Bird Diversity
Academic Year 2023-24
Practical Attendance

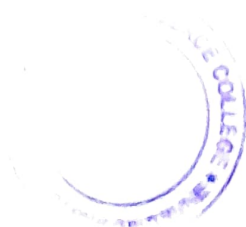
Sr.No.	Roll.No	Student Name	02/09	09/09	16/09	23/09	30/09	07/10	14/10
1.	8026	GHADGE POONAM BHAUSAHEB	P	P	P	P	P	P	P
2.	8027	BOLGAD ARUN GAJENDRA	P	P	P	P	P	P	P
3.	8028	GHADAGE DHIRAJ VILAS	P	P	P	P	P	P	P
4.	8029	PAWAR RUSHIKESH NANASAHEB	P	P	P	P	P	P	P
5.	8030	MOHITE SAURABH SUNIL	P	P	P	P	P	P	A
6.	8033	KALE RUTURAJ TANAJI	P	A	P	P	P	P	P
7.	8034	LOKARE KOMAL KUBER	P	P	P	P	P	P	P
8.	8036	GAIKWAD PRAJAKTA SUDHAKAR	P	P	P	P	P	P	P
9.	8041	LOKHANDE RENUKA UMESH	P	P	P	P	P	P	P
10.	8042	RAUT RUTUJA CHANDRAKANT	P	P	P	A	P	P	P
11.	8044	THORAT DIPTI DIPAK	P	P	P	P	P	P	P
12.	8045	LASHKAR SAKSHI SOMNATH	P	P	P	P	P	P	P
13.	8046	BHOSALE SHUBHAM DATTATRAY	P	P	P	P	P	P	A
14.	8047	MULANI TANUJA MUNEER	P	A	P	P	P	P	P
15.	8048	SHINDE DIPALI MOHAN	P	P	P	P	P	P	P
16.	8049	GALANDE ANJALI BALASAHEB	P	P	P	A	P	P	P
17.	8050	VYAVAHARE ATUL SUBRAO	P	P	P	P	P	P	P
18.	8051	SHID SHITAL SARJERAO	P	P	P	P	P	P	P
19.	8052	DHAVAL SWAPNIL SAUDAGAR	P	P	P	P	P	P	P
20.	8053	PATIL ANKITA SHRIKRUSHNA	P	P	P	P	P	P	P
21.	8055	DHUDUKNALE DHANRAJ TANAJI	P	P	P	P	P	P	P
22.	8057	KUBADE ROHINI BAPURAO	P	P	A	P	P	P	P
23.	8060	DHAVAL ASHOK RAGHUNATH	P	P	P	P	P	P	A
24.	8061	DHUKU SUJAL SHAHAJI	P	P	P	A	P	P	P
25.	8063	SALUNKHE PREMRAJ KUMAR	P	P	P	P	P	P	P
26.	8065	PISAL SHRADDHA	P	A	P	P	P	P	P

		HANUMANT							
27.	8066	MAHADIK TANMAY MAHADEV	P	P	P	P	P	A	P
28.	8067	LOKARE VISHAL JAYSING	P	P	P	P	P	P	P
29.	8068	KHABALE SAKSHI DHANAJI	P	A	P	P	P	P	P
30.	8069	PAWAR SAYALI CHANDRAKANT	P	P	P	P	P	P	P
31.	8070	NALAWADE JYOTI NAVANATH	P	P	P	P	P	P	P
32.	8072	KHABALE RAJANI KAILAS	P	P	P	P	A	P	P
33.	8073	NALAWADE PORNIMA KISAN	P	P	P	A	P	P	P
34.	8074	NALAWADE KAJAL BHUJANG	P	P	P	P	P	P	A
35.	8075	PANDIT SURAJ SATISH	P	P	A	P	P	P	P
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43.	8087	DEVHARE TEJAS DAGADU	P	P	P	A	P	P	P
44.	8088	BHANDALKAR SHITAL SHIVAJI	P	A	P	P	P	P	P
45.	8091	KASHID SAURABH SOMNATH	P	P	P	P	P	P	P
46.	8183	BARAL YOGITA NARAYAN	P	P	P	P	P	P	A
47.	8184	BHONG SAKSHI RAJU	P	P	A	P	P	P	P
48.	8185	KACHARE ASMITA SOPAN	P	P	P	A	P	P	P
49.	8187	THOKALE VISHVATEJ SUNIL	P	A	P	P	P	P	P
50.	8188	KSHIRSAGAR PHULAN RAMKRUSHANA	P	P	P	P	P	P	P


Subject Teacher


H.O.D.
A. V. Sarwade
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Indapur Taluka Shikshan Prasarak Mandal's,
Arts, Science and Commerce College,
Indapur, Dist. Pune

(Affiliated to Savitribai Phule Pune University, Pune)



Organized

Certificate Course on Bird Diversity
(Academic Year 2022-23)

This is to certify that *Hegade Pranali Ramesh* a student from S. Y. B.Sc. Class has actively participated and successfully completed Certificate Course on Bird Diversity (4 Credits). This course is organized by Department of Zoology, ITSPM's, Arts, Science and Commerce College, Indapur, Dist. Pune from 01.09.2022 to 15.10.2022


Asst.Prof. Sonam Jamdade
Course Coordinator


Prof. Dr. Jiwan Sarwade
Head Dept. of Zoology

Head
Department of Zoology,
Arts, Science & Commerce College,
Indapur, Dist. Pune - 413106


Prof. Dr. Shivaji Veer
IQAC Coordinator


Prof. Dr. Jiwan Sarwade
Principal

Principal
Arts, Science and
Commerce College
Indapur-413106 Dist. Pune

ITSPM'S

Arts, Science And Commerce College , Indapur

Department Of ZOOLOGY

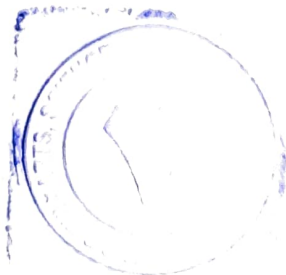
Notice for Student

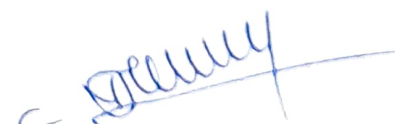
Date-26/08/2023

All the Student who registered their names to 'Certificate Course in BLOOD GROUP ANALYSIS' are hereby informed that their lectures will be started on Thursday , 01/09/2023 in Room No. 76 at 1 pm to 2 pm. It is compulsory to attend the lectures of value added course for getting desired credit .


HOD

Dr. J. P. Sarwade
M.Sc., Ph.D., FZSI
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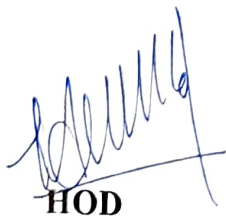
ITSPM'S
Arts, Science And Commerce College , Indapur

Department Of ZOOLOGY

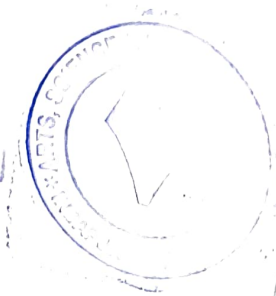
Notice for Student

Date-26/08/2023

All the Student who registered their names to 'Certificate Course in BLOOD GROUP ANALYSIS' are hereby informed that their Practical's will be started on Saturday , 02/09/2023 in Room No.76 at 1 pm to 5 pm. It is compulsory to attend the Practical's of value added course for getting desired credit .


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Arts, Science & Commerce College,
Indapur, Dist. Pune - 413106




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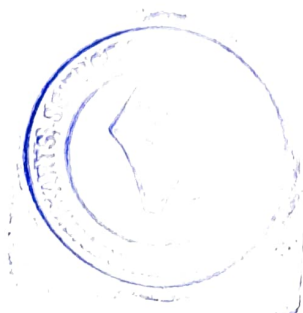
ITSPM'S
Arts, Science And Commerce College , Indapur
Department Of ZOOLOGY
Certificate Course in BLOOD GROUP ANALYSIS
2022-23
Timetable

Time	Thursday	Friday	Saturday
1 pm To 2 pm	Theory	Theory	-
1 pm To 5 Pm	-	-	Practical


HOD

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ITSPM'S
Arts, Science And Commerce College, Indapur
Department of Zoology
Certificate course in Blood group analysis
Registered Student List
Academic Year 2022-23

Sr.No	Roll No.	Name of Student	Class
1	8063	DESHMUKH ROHAN ASHOK	S,Y.Bsc
2	8065	KAWADE AISHWARYA SOMNATH	S,Y.Bsc
3	8067	ZAGADE TEJASHRI BALU	S,Y.Bsc
4	8069	DEOKAR KOMAL SATISH	S,Y.Bsc
5	8070	KUDALE SONALI NAVNATH	S,Y.Bsc
6	8071	BHOSALE ASHVINI SANTOSH	S,Y.Bsc
7	8072	NALAVADE NEHA DNYANESHWAR	S,Y.Bsc
8	8073	MISAL MOHINI POPAT	S,Y.Bsc
9	8075	HEGADE PRANALI RAMESH	S,Y.Bsc
10	8076	SURYAWANSHI SIDDHI JOTIRAM	S,Y.Bsc
11	8079	KHARAT AISHWARYA NITIN	S,Y.Bsc
12	8080	GAIKWAD SAKSHI SAMADHAN	S,Y.Bsc
13	8082	KURDE SHREYASH SUDAM	S,Y.Bsc
14	8083	KUMBHAR SNEHAL BAPU	S,Y.Bsc
15	8085	SHENDE AMRUTA BITTU	S,Y.Bsc
16	8086	SHENDE PRATIKSHA RAJARAM	S,Y.Bsc
17	8087	PAWAR SHUBHANGI SHRIKANT	S,Y.Bsc
18	8088	NALAWADE ASHA VASANT	S,Y.Bsc
19	8089	DEOKAR OMKAR SANTOSH	S,Y.Bsc
20	8091	ATPADKAR SHITAL VITTHAL	S,Y.Bsc
21	8092	FARADE SAMADHAN PANDHARINATH	S,Y.Bsc
22	8093	KHABALE PRANALI DHANAJI	S,Y.Bsc
23	8094	BHOSALE SAI RAJENDRA	S,Y.Bsc
24	8095	DEVKAR RAJASHRI ARUN	S,Y.Bsc
25	8096	SATAV GAURI DNYANESHWAR	S,Y.Bsc
26	8098	METE AJAY LAXMAN	S,Y.Bsc
27	8181	MARKAD RUTUJA TANAJI	S,Y.Bsc
28	8182	PATOLE RUPALI RAMCHANDRA	S,Y.Bsc
29	8183	THORAT RUSHIKESH RAMESH	S,Y.Bsc
30	8185	BHONG VISHAL PANDURANG	S,Y.Bsc
31	8186	BHONG GAURAV SANJAY	S,Y.Bsc
32	8187	RAUT RANJIT RAJKUMAR	S,Y.Bsc
33	8188	VYAWAHARE PRAGATI VITTHAL	S,Y.Bsc
34	8190	PAWASE VIVEK NAMDEV	S,Y.Bsc
35	8191	BANSUDE DIPALI RAMAKANT	S,Y.Bsc
36	8192	KALE RUSHIKESH SATISH	S,Y.Bsc
37	8193	SHENDE YASH RAJKUMAR	S,Y.Bsc
38	8194	MARKAD SAKSHI TUKARAM	S,Y.Bsc
39	8195	BHONG SWAPNALI SURESH	S,Y.Bsc
40	8196	GAIKWAD RAJU BALU	S,Y.Bsc
41	8197	GAWAND SAURABH RAMESH	S,Y.Bsc
42	8198	MARKAD ASHVINI SHIVAJI	S,Y.Bsc
43	8199	MARADE PRITI SAMPAT	S,Y.Bsc
44	8204	GHANWAT NAVNATH HANUMANT	S,Y.Bsc
45	8205	BHONG ADVET DATTATRAY	S,Y.Bsc
46	8206	BORATE SAKSHI SURESH	S,Y.Bsc

47	8207	SHINDE GAURI BHARAT	S, Y. Bsc
48	8208	MARKAD SONALI DADASAHEB	S, Y. Bsc
49	8209	AATAR MUSKAN HUSEN	S, Y. Bsc
50	8210	MASAL RUTUJA SANTOSH	S, Y. Bsc
51	8211	KASHID NIKITA AJINATH	S, Y. Bsc
52	8212	SHINDE RUTUJA SANJAY	S, Y. Bsc
53	8214	THAVARE LAXMI DHANAJI	S, Y. Bsc
54	8215	SHINDE TEJAS VITTHAL	S, Y. Bsc
55	8216	ZOL CHAITANYA SANTOSH	S, Y. Bsc
56	8217	CHAVAN SHAMBHURAJ ASHOK	S, Y. Bsc
57	8218	YADAV RUTURAJ JAYWANT	S, Y. Bsc
58	8219	WAGHMODE PALLAVI ARJUN	S, Y. Bsc
59	8220	TARANGE PAYAL BHARAT	S, Y. Bsc
60	8221	NARALE PRATIKSHA TANAJI	S, Y. Bsc
61	8222	ALISHA RAJMAHMAD BAGWAN	S, Y. Bsc
62	8224	TAMBAVE ADITAY DHONDIRAM	S, Y. Bsc
63	3034	PANDIT SURAJ SATISH	F. Y. Bsc
64	3035	SHINDE AJAY PRALHAD	F. Y. Bsc
65	3036	SAYYAD IRSHAD KAYYUM	F. Y. Bsc
66	3037	KADAM SNEHAL VILAS	F. Y. Bsc
67	3038	SHID SHITAL SARJERAO	F. Y. Bsc
68	3041	GHADGE POONAM BHAUSAHEB	F. Y. Bsc
69	3042	MORE OMKAR GURUNATH	F. Y. Bsc
70	3043	DHUKU SUJAL SHAHAJI	F. Y. Bsc
71	3044	KHADE SANKET BAPURAO	F. Y. Bsc
72	3046	LASHKAR SAKSHI SOMNATH	F. Y. Bsc
73	3047	CHAVAN AMRUTA MAHADEO	F. Y. Bsc
74	3049	BHOSALE SHUBHAM DATTATRAY	F. Y. Bsc
75	3050	DEOKAR KIRAN MAHADEV	F. Y. Bsc
76	3052	RAUT RUTUJA CHANDRAKANT	F. Y. Bsc
77	3053	BANSODE SHITAL DATTATRAYA	F. Y. Bsc
78	3054	SHINDE SAKSHI ARVIND	F. Y. Bsc
79	3055	MHETRE RUTUJA SHIVAJI	F. Y. Bsc
80	3057	MISAL ANIKET ANIL	F. Y. Bsc
81	3059	ANARASE VAISHALI MARUTI	F. Y. Bsc
82	3060	SURYAWANSHI DHANASHRI SUNIL	F. Y. Bsc
83	3061	BHOSALE SHITAL POPAT	F. Y. Bsc
84	3063	PAWAR SAYALI CHANDRAKANT	F. Y. Bsc
85	3064	PISE KIRAN DEVIDAS	F. Y. Bsc
86	3065	LAVATE ANKITA BALASO	F. Y. Bsc
87	3066	SAYYAD KASHISH SALIM	F. Y. Bsc
88	3067	NAWALE ROHAN SANJAY	F. Y. Bsc
89	3068	SHINDE DIPALI MOHAN	F. Y. Bsc
90	3070	NALAWADE SAYALI VITHAL	F. Y. Bsc

Co-ordinator

H.O.D

Dr. J. P. Sarwade

M.Sc., Ph.D., FZSI

Head

Department of Zoology,
Arts, Science & Commerce College,
Indapur, Dist. Pune - 413106

Principal

PRINCIPAL

ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE

ITSPM'S
Arts, Science And Commerce College, Indapur
Department of Zoology
Certificate course in Blood group analysis
Attendance Sheet
Academic Year 2022-23

Sr.No	Roll No.	Name of Student	01/09/23	02/09/23	8/09/23	9/09/23	15/09/23
1	8063	DESHMUKH ROHAN ASHOK	P	P	P	P	P
2	8065	KAWADE AISHWARYA SOMNATH	P	P	P	P	P
3	8067	ZAGADE TEJASHRI BALU	P	P	P	P	P
4	8069	DEOKAR KOMAL SATISH	P	P	P	P	P
5	8070	KUDALE SONALI NAVNATH	P	P	P	P	P
6	8071	BHOSALE ASHVINI SANTOSH	P	P	P	P	P
7	8072	NALAVADE NEHA DNYANESHWAR	P	P	P	P	P
8	8073	MISAL MOHINI POPAT	P	P	P	P	P
9	8075	HEGADE PRANALI RAMESH	P	P	P	P	P
10	8076	SURYAWANSHI SIDDHI JOTIRAM	P	P	P	P	P
11	8079	KHARAT AISHWARYA NITIN	A	A	A	P	P
12	8080	GAIKWAD SAKSHI SAMADHAN	P	P	P	P	P
13	8082	KURDE SHREYASH SUDAM	P	P	P	P	P
14	8083	KUMBHAR SNEHAL BAPU	P	P	P	P	P
15	8085	SHENDE AMRUTA BITTU	P	P	P	P	P
16	8086	SHENDE PRATIKSHA RAJARAM	P	P	P	P	P
17	8087	PAWAR SHUBHANGI SHRIKANT	P	P	P	P	P
18	8088	NALAWADE ASHA VASANT	P	P	P	P	P
19	8089	DEOKAR OMKAR SANTOSH	P	P	P	P	P
20	8091	ATPADKAR SHITAL VITTHAL	A	A	A	P	P
21	8092	FARADE SAMADHAN PANDHARINATH	P	P	P	P	P
22	8093	KHABALE PRANALI DHANAJI	P	P	P	P	P
23	8094	BHOSALE SAI RAJENDRA	P	P	P	P	P
24	8095	DEVKAR RAJASHRI ARUN	A	A	A	A	A
25	8096	SATAV GAURI DNYANESHWAR	P	P	P	P	P
26	8098	METE AJAY LAXMAN	A	A	A	A	A
27	8181	MARKAD RUTUJA TANAJI	P	P	P	P	P
28	8182	PATOLE RUPALI RAMCHANDRA	P	P	P	P	P
29	8183	THORAT RUSHIKESH RAMESH	P	P	P	P	P
30	8185	BHONG VISHAL PANDURANG	P	P	P	P	P
31	8186	BHONG GAURAV SANJAY	P	P	P	P	P
32	8187	RAUT RANJIT RAJKUMAR	P	P	P	P	P
33	8188	VYAWAHARE PRAGATI VITTHAL	P	P	P	P	P
34	8190	PAWASE VIVEK NAMDEV	P	P	P	P	P
35	8191	BANSUDE DIPALI RAMAKANT	A	A	A	P	P
36	8192	KALE RUSHIKESH SATISH	P	P	P	P	P
37	8193	SHENDE YASH RAJKUMAR	P	P	P	P	P
38	8194	MARKAD SAKSHI TUKARAM	P	P	P	P	P
39	8195	BHONG SWAPNALI SURESH	P	P	P	P	P
40	8196	GAIKWAD RAJU BALU	P	P	P	P	P
41	8197	GAWAND SAURABH RAMESH	P	P	P	P	P
42	8198	MARKAD ASHVINI SHIVAJI	P	P	P	P	P
43	8199	MARADE PRITI SAMPAT	P	P	P	P	P

44	8204	GHANWAT NAVNATH HANUMANT	P	P	P	P	P
45	8205	BHONG ADVET DATTATRAY	A	A	A	A	A
46	8206	BORATE SAKSHI SURESH	P	P	P	P	P
47	8207	SHINDE GAURI BHARAT	P	P	P	P	P
48	8208	MARKAD SONALI DADASAHEB	A	A	A	A	A
49	8209	AATAR MUSKAN HUSEN	A	P	P	P	P
50	8210	MASAL RUTUJA SANTOSH	A	A	A	P	P
51	8211	KASHID NIKITA AJINATH	P	P	P	P	A
52	8212	SHINDE RUTUJA SANJAY	P	P	A	A	P
53	8214	THAVARE LAXMI DHANAJI	P	P	P	P	P
54	8215	SHINDE TEJAS VITTHAL	P	P	P	P	P
55	8216	ZOL CHAITANYA SANTOSH	P	P	P	P	P
56	8217	CHAVAN SHAMBHURAJ ASHOK	P	P	P	P	P
57	8218	YADAV RUTURAJ JAYWANT	P	P	P	P	P
58	8219	WAGHMODE PALLAVI ARJUN	P	A	P	P	A
59	8220	TARANGE PAYAL BHARAT	A	A	A	A	A
60	8221	NARALE PRATIKSHA TANAJI	P	P	A	A	A
61	8222	ALISHA RAJMAHMAD BAGWAN	P	P	P	A	A
62	8224	TAMBAVE ADITAY DHONDIRAM	A	A	A	A	P
63	8063	DESHMUKH ROHAN ASHOK	P	P	P	P	P
64	8065	KAWADE AISHWARYA SOMNATH	A	P	P	P	P
65	8067	ZAGADE TEJASHRI BALU	P	P	P	P	P
66	8069	DEOKAR KOMAL SATISH	P	P	P	P	P
67	8070	KUDALE SONALI NAVNATH	P	P	P	P	P
68	8071	BHOSALE ASHVINI SANTOSH	P	P	P	P	P
69	8072	NALAVADE NEHA DNYANESHWAR	A	A	A	A	A
70	8073	MISAL MOHINI POPAT	A	A	A	A	A
71	8075	HEGADE PRANALI RAMESH	P	A	A	P	P
72	8076	SURYAWANSHI SIDDHI JOTIRAM	P	P	P	P	P
73	8079	KHARAT AISHWARYA NITIN	P	P	P	P	P
74	8080	GAIKWAD SAKSHI SAMADHAN	P	P	P	P	P
75	8082	KURDE SHREYASH SUDAM	P	P	P	P	P
76	8083	KUMBHAR SNEHAL BAPU	P	P	A	A	A
77	8085	SHENDE AMRUTA BITTU	P	P	P	P	P
78	8086	SHENDE PRATIKSHA RAJARAM	P	P	P	P	P
79	8087	PAWAR SHUBHANGI SHRIKANT	P	P	P	P	P
80	8088	NALAWADE ASHA VASANT	P	P	P	P	P
81	8089	DEOKAR OMKAR SANTOSH	P	P	P	P	P

Co-ordinator

H.O.D
Dr. J. P. Sarwade
M.Sc., P.D., FZSI
Head
Department of Zoology
Arts, Science & Commerce
Indapur, Dist. Pune

Principal
Principal
ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE

Indapur Taluka Shikshan Prasarak Mandal's,
Arts, Science and Commerce College,
Indapur, Dist. Pune

(Affiliated to Savitribai Phule Pune University, Pune)

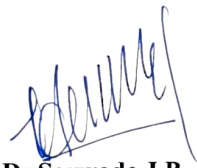


Organized

Certificate Course on Blood Group analysis
(Academic Year 2022-23)

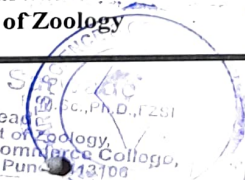
This is to certify that *kokare Tejshri Vasudeo* a student from F. Y. B.Sc. Class has actively participated and successfully completed Certificate Course on Blood group analysis(4 Credits). This course is organized by Department of Zoology, ITSPM's, Arts, Science and Commerce College, Indapur, Dist. Pune from 01.09.2022 to 16.10.2022


Prof. Ranjit More
Course Coordinator


Prof. Dr. Sarwade J.P.
Head Dept. of Zoology


Prof. Dr. Shivaji Veer
IQAC Coordinator


Prof. Dr. Jivran Sarwade
Principal
Arts, Science and
Commerce College
Indapur - 413106 Dist. Pune


Dr. J. P. Sarwade
Head
Department of Zoology,
Arts, Science & Commerce College,
Indapur, Dist. Pune - 413106

Acknowledgement

We are thankful to hon. President, hon. Vice president, secretary and member of *ITSPMS* to grant permission to conduct add on course. We are also thankful to principal Dr. Sanjay Chakane for encourage to take this course. I am also thankful Dr. Jiwan Sarwade (Head, P.G. Dept. of Zoology) to provide lab facility and valuable guidance during course.

I am also thankful to my friends and student for help during the course



THANK
YOU



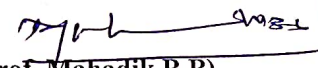
Indapur Taluka Shikshan Prasarak Mandal's
Arts, Science and Commerce College, Indapur
Department Of Botany
Certificate Course on Plant Propagation Techniques
Academic Year (2022-2023)

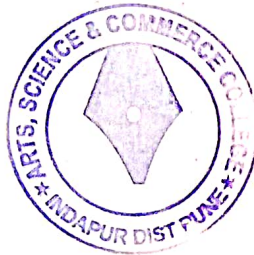
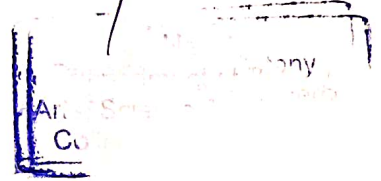
Student Notice

All the Students of S.Y.B.Sc. are hereby noticed that our department started **certificate course on Plant Propagation Techniques** for academic year **2022 -23**. This course is open for all S.Y.B.Sc. students.

Above course will be started from 03/02/2023 upto 18/02/2023. Interested students fill registration form and submit to department before **01/02/2023**. Contact to department for more details.


PRINCIPAL
ARTS, SCIENCE AND
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INDAPUR-413106 DIST-PUNE


(Prof. Mahadik B.B)



Art's, Science & Commerce College, Indapur

Department Of Botany

Syllabus

Plant Propagation Techniques (40 Lectures)

Objectives-

1. Enable the students to identify vegetative plant parts like root, Stem, leaves or modified parts used for Propagation.
2. Provide hands on training for plant propagation method like Cutting, Grafting, Budding & Layering.
3. To give information about commercial importance of propagation methods used for horticultural crops.
4. To give laboratory experience, being able to perform plant propagation methods on a plant.
5. To learn the prospect & scope of Plant Propagation techniques in small scale industry.
6. Help the students to learn a means of self-employment and income generation.

Credit I

Unit –1: Basic concepts of propagation

(3 Lectures)

1. Propagation: Definition, need and potentialities for plant multiplication; 2. Propagation facilities: Mist chamber, humidifiers, greenhouses, glasshouses, cold frames, hot beds, poly-houses, 3. Identification and propagation by division and separation: Bulbs, pseudo bulbs, corms, tubers and rhizomes; runners, stolon, suckers and offsets.

Unit –3: Propagation by cuttings

(4 Lectures)

1. Cuttings: Definition, different methods of cuttings; root and leaf cuttings. 2. Stem cuttings: Definition of stem tip and section cuttings; plant propagation by herbaceous, soft wood, semi hard wood, hard wood and coniferous stem cuttings. 3. Factors influencing rooting of cuttings; Use of plant growth regulators in rooting of cuttings.

Unit –4: Propagation by layering

(4 Lectures)

1. Layering: Definition, principle and factors influencing layering. 2. Plant propagation by layering: Ground layering = tip layering, simple layering, trench layering, mound (stool) layering and compound (serpentine layering). 3. Air layering technique = application in woody trees.

Unit –5: Propagation by grafting and budding

(5 Lectures)

1. Grafting: Definition, principle, types, graft incompatibility, collection of scion wood stick, scion-stock relationship, and their influences, bud wood certification; micro grafting. 2. Propagation by veneer, whip, cleft, side and bark grafting techniques. 3. Budding: Definition; techniques of 'T', inverted 'T', patch and chip budding.

Credit II

Practicals

24lectures

Unit 1: Demonstration of Tools and Equipment's used for plant propagation .

Unit 2: To study the natural vegetative methods of plant propagation.

Unit 3: To study the artificial vegetative methods of plant propagation – Types Of Cutting

Unit 4: To study the artificial vegetative methods of plant propagation – Types Of Grafting

Unit 5: To study the artificial vegetative methods of plant propagation – Types Of Budding

Unit 6: To study the artificial vegetative methods of plant propagation –Types of Layering

Unit 7: To study the potting and repotting of ornamental plant.



Budget of Course- Total Cost – 2,82,000/-

Financial Details :

	Consumables			Equipments	
1.	Earthen pots	20,000	1.	Spades (5)	5,000
2.	Soil	1,000	2.	Forks (5)	2,000
3.	Planting materials	20,000	3.	Secateurs (25)	10,000
4.	Watering	5,000	4.	Knives (50)	10,000
5.	Cococoir	500	5.	Khurpi (10)	3,500
6.	Polybags	2,000	6.	Gardening handtool Set	20,000
7.	Furniture	5,000	7.	Water Cans (5)	4,000
8.	Polythene Tape	5,000	6.	Water Pipes	1,000
9.	Moss	10,000		Chemicals	
10.	Seedlings	5,000	7.	Auxins	2,000
11.	Manures and fertilizers	10,000	8.	Gibberellin	20,000
12.	Cocopeat	5,000	9.	Cytokinin	25,000
Total		89,000/-	Total		1,93,000/-

Fee Per Student- 1000



Indapur Taluka Shikshan Prasarak Mandal's
Arts, Science and Commerce College, Indapur
Department Of Botany
Certificate Course on Plant Propagation Techniques
Academic Year (2022-2023)

Time Table

		Date														
Sr. No.	Time	3/2/23	4/2/23	6/2/23	7/2/23	8/2/23	9/2/23	10/2/23	11/2/23	13/2/23	14/2/23	15/2/23	16/2/23	17/2/23	18/2/23	
1	12.30 – 1.30	Theory MBB	Theory KPS	Theory KPS	Theory MBB	Theory MBB	Theory KPS	Theory KPS	Theory MBB	Theory MBB	Theory KPS	Theory KPS	Theory MBB	Theory MBB	Theory KPS	
2	1.30 - 2.30	Theory KPS	Theory KPS													
3	2.30- 4.30									Practical MBB	Practical KPS	Practical KPS	Practical MBB	Practical MBB	Practical KPS	



Indapur Taluka Shikshan Prasarak Mandal's

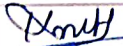
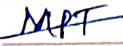
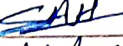
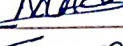
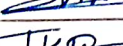
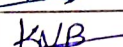
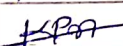
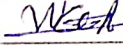
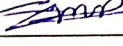
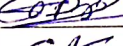
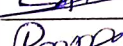
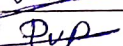
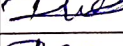
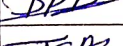
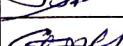
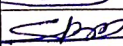
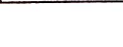
Art's Science And Commerce College Indapur

Department Of Botany

Certificate Course on Plant Propagation Techniques

Students List

Academic Year (2022-2023)

Sr No.	Roll No.	STUDENT NAME	Sign
1	8002	NIGADE NIKITA HARI	
2	8003	MHETRE PRAJAKTA TATYARAM	
3	8004	SARADE ARCHANA HANUMANT	
4	8005	MHETRE AMRUTA SANTOSH	
5	8006	SURWASE VISHWATEJ MAHADEV	
6	8007	THORAT KANCHAN DASHRATH	
7	8011	KECHE VAISHNAVI BALASAHEB	
8	8012	KOLAPE PRATIKSHA NAGNATH	
9	8013	WAGHMODE GANESH ANKUSH	
10	8014	WAGHMODE SUDIP MAHADEV	
11	8016	GAIKWAD DEVIKA MAHADEV	
12	8017	CHOPADE AMAR TANAJI	
13	8020	PHADATARE NIKHIL MILIND	
14	8023	PANDULE VISHAL RAJENDARA	
15	8024	RAUT AMRUTA RAMDAS	
16	8025	SHINDE RUTUJA VIJAY	
17	8026	DHAVALA VANASHRI SATYAWAN	
18	8028	BHONG PRATHMESH DADARAM	
19	8032	JADHAV SAYALI DEVIDAS	
20	8033	GANDHALE NIKITA JYOTIRAM	
21	8034	SARODE PAYAL MAHADEV	

22	8037	BARAVKAR SANTOSH SUNIL	PSK
23	8043	GAIKWAD SACHIN BHANUDAS	GSP
24	8044	CHANDGUDE RUTURAJ SATISH	Col
25	8049	GHADAGE VIDYA HANUMANT	GVH
26	8054	MALI KIRTI SANJAY	MKS
27	8059	SATHE RUTUJA GANESH	SRG
28	8061	PATIL OMKAR RAMCHANDRA	POC
29	8065	KAWADE AISHWARYA SOMNATH	KAS
30	8067	ZAGADE TEJASHRI BALU	ZTB
31	8072	NALAVADE NEHA DNYANESHWAR	NND
32	8074	KUMBHAR RUSHIKESH PANDURANG	KRP
33	8076	SURYAWANSHI SIDDHI JOTIRAM	SSJ
34	8079	KHARAT AISHWARYA NITIN	KAN
35	8080	GAIKWAD SAKSHI SAMADHAN	GSS
36	8081	LONDHE SAMADHAN BHIMRAO	LSB
37	8083	KUMBHAR SNEHAL BAPU	KSB
38	8084	MORE SANIKA VITTHAL	MSV
39	8085	SHENDE AMRUTA BITTU	SAB
40	8086	SHENDE PRATIKSHA RAJARAM	SPP



Attendance

[illegible]

Indapur Taluka Shikshan Prasarak Mandal's
Arts, Science and Commerce College, Indapur
Department Of Botany
Certificate Course on Plant Propagation Techniques
Academic Year (2022-2023)
Students Feedback Form

1. Are you satisfied with course outcomes?

.....yes.....
.....

2. How would you rate the quality of teaching?

.....Good.....
.....

3. Does your teachers completed the syllabus and clarified your queries?

.....yes.....
.....

4. Does your theachers use ICT tools for effective learning?

.....yes.....
.....

5. Overall impact of course.....

.....Good.....
.....

6. Suggestions if any.....

.....no.....
.....



Name of the Student..Nigade..Nikita..Hari.

Class...S.Y.BSc.....

Roll No....8002.....

Sign :.....N.H......

Indapur Taluka Shikshan Prasarak Mandal's
Arts, Science and Commerce College, Indapur
Department Of Botany
Certificate Course on Plant Propagation Techniques
Academic Year (2022-2023)
Students Feedback Form

1. Are you satisfied with course outcomes?

.....
..... Yes

2. How would you rate the quality of teaching?

.....
..... good

3. Does your teachers completed the syllabus and clarified your queries?

.....
..... Yes

4. Does your theachers use ICT tools for effective learning?

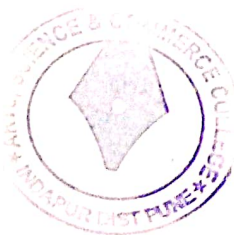
.....
..... Yes

5. Overall impact of course.

.....
..... good

6. Suggestions if any

.....
..... No



Name of the Student Mhepre. Prajakta Tatyaram

Class. S. Y. BSc.

Roll No. 8003

Sign : MPT

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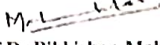


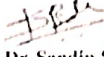
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Certificate Course on Plant Propagation Techniques
(Academic Year 2022-2023)

This is to certify that *Nigade Nikita Hari* a student from S. Y. B.Sc. Class has actively participated and successfully completed Certificate Course on Plant Propagation Techniques. This course is approved by Savitribai Phule Pune University, Pune and organized by Department of Botany, ITSPM's, Arts, Science and Commerce College, Indapur, Dist. Pune from 03.02.2023 to 18.02.2023


Prof. Dr. Panchshila Kabnoorkar
Course Coordinator


Prof. Dr. Bibhishan Mahadik
Head Dept. of Botany


Prof. Dr. Sandip Shinde
IQAC Co-ordinator


Prof. Dr. Jiwan Sarwade
Principal



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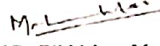


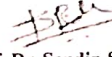
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Certificate Course on Plant Propagation Techniques
(Academic Year 2022-2023)

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**Indapur Taluka Shikshan Prasarak Mandal's
Arts, Science and Commerce College, Indapur**

Department Of Botany

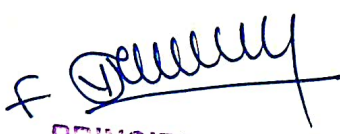
Certificate Course on Mushroom Cultivation

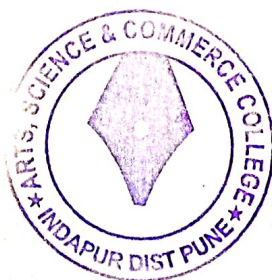
Academic Year (2022-2023)

Student Notice

All the Students of **F.Y.B.Sc.** and **S.Y.B.Sc.** are hereby noticed that our department started **certificate course on Mushroom Cultivation** for academic year **2022 -23**. This course is open for all **F.Y.B.Sc.** and **S.Y.B.Sc.** students.

Above course will be started from 03/03/2023 upto 18/03/2023. Interested students fill registration form and submit to department before 01/02/2023. Contact to department for more details.


PRINCIPAL
ARTS, SCIENCE AND
COMMERCE COLLEGE
INDAPUR-413106 DIST-PUNE




(Prof. Mahadik B.B)
Head
Department of Botany
Arts, Science & Commerce
College, Indapur Dist. Pune

Art's, Science & Commerce College, Indapur

Department Of Botany

Syllabus

Mushroom Cultivation (30 Lectures)

Objectives-

1. Enable the students to identify edible & poisonous mushrooms.
2. Provide hands on training for the preparation of bed for mushroom cultivation, harvesting & Post harvest techniques.
3. To give information about nutritional value of mushroom.
4. Give the students exposure to the experiences of experts and functioning mushroom farms.
5. To learn the prospect & scope of mushroom cultivation in small scale industry.
6. Help the students to learn a means of self-employment and income generation.

Unit 1: Introduction to Mushroom

2 lectures

History and Scope of Mushroom Cultivation; Classification, Distribution of Mushroom; Vegetative characters of edible and poisonous mushrooms.

Unit 2: Introduction of edible Mushrooms

2 lectures

Button Mushroom (*Agaricus bisporus*), Oyster mushroom (*Pleurotus sajorcaju*), Paddy straw mushroom (*Volvariella volvacea*), Milky Mushroom (*Calocybe indica*); Other economically important and medicinal mushroom- Shiitake Mushroom (*Lenthula edodes*), Kabul Dhingri (King Oyster) Mushroom.

Unit 3: Principle of Mushroom Cultivation

8 lectures

Structure and construction of mushroom house, Sterilization of substrates. Spawn production, culture media preparation, Preparation of mother spawn, production of planting spawn, selection of good quality spawn, Mushroom Bed Preparation/maintenance, Harvesting method, Storage.

Unit 4: Disease and Pest Management in cultivated mushrooms

2 lectures

Dry Bubble and wet bubble- Major diseases of cultivated mushroom; Major insect pests - Mushroom flies / nematodes / mites.

Unit 5: Nutritional and health benefits of Mushroom

2 lectures

Nutritional and health benefits of mushrooms. Therapeutic aspects- antitumour effects.

Unit 6: Value addition of Mushroom

2 lectures

Value added products / recipes, Quality assurance, Packing and packaging, Market opportunities.

Unit 7: Training / Workshop

12 lectures

Sterilization and sanitation of mushroom house, instruments and substrate; Preparation of mother culture, media preparation, inoculation, incubation and spawn production; Cultivation of *Volvariella volvacea* (Paddy straw mushroom) and *Pluerotus sajorcaju* (oyster mushroom) using paddy straw/agricultural waste.

References :

1. Paul Stamets, J.S. and Chilton, J.S. 2004. Mushroom cultivation A practical guide to growing mushrooms at home, Agarikon Press.
2. Tewari and Pankaj Kapoor S.C. 1993. Mushroom cultivation. Mittal Publication. Delhi.
3. Marimuth et al., 1991. Oyster Mushrooms. Dept. of Plant pathology, TNAU, Coimbatore.
4. Nita Bahl. 1988. Hand book of Mushrooms, 2nd Edition, Vol I & II.
5. Shu Fing Chang, Philip G. Miles and Chang, S.T. 2004. Mushrooms Cultivation, nutritional value, medicinal effect and environmental impact. 2nd ed., CRC press.

Outcome-

- 1) Students will be able to identify edible & poisonous types of mushroom
- 2) Gain the knowledge of cultivation of different types of edible mushrooms and spawn Production.
- 3) Building knowledge on diseases and pests of mushroom and their management.
- 4) Learning value added products preparation from mushroom.
- 5) Self employment and income generation for unemployed rural youth.
- 6) Students will be able to produce spawn on their own.
- 7) Students studied the techniques of mushroom cultivation

Budget of Course- Total Cost - 10,99,000/-

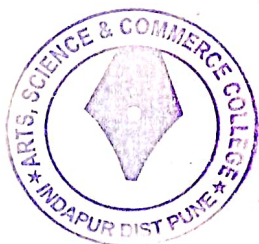
Financial Details:

1. Details of financial requirements

Sl.No.	Head	Cost
1.	Infrastructure	345,000/-
2.	Equipment	312,000/-
3.	Consumables	412,000/-
4.	Contingency	30,000/-
TOTAL		10,99,000/-

Infrastructure

Sl.No.	Head	Cost
1.	Culture Room	90,000/-
2.	Culture racks	75,000/-
3.	Straw Storage Room	80,000/-
4.	Incubation Room	100,000/-
TOTAL		345,000/-



Consumables-**Equipments-**

Sr. No.	Head	Cost	Sl.No.	Head	Cost
1.	Mushroom Spawn	70,000/-	1.	Humidifier	27,000/-
2.	Polythene Bags	15,000/-	2.	Autoclave	46,000/-
3.	Composting Material	1,00,000/-	3.	Thermohygrometer	13,000/-
4.	Chemicals	5,000/-	4.	Boiller	60,000/-
5.	Growing & Harvesting Cost	30,000/-	5.	Hot Air Oven	15,000/-
6.	Packaging	25,000/-	6.	Water Bath	40,000/-
7.	Electricity & Irrigation	10,000/-	7.	Dryer	28,000/-
8.	Straw chopping Machine	25,000/-	8.	Refrigerator (Regular)	50,000/-
9.	Stacking trays	80,000/-	9.	Weighing Machine	30,000/-
10.	Water Spraying System	5,000/-	10.	Exhaust Fan	3,000/-
11.	Reference Books	27,000/-	TOTAL	312,000/-	
12.	Other Miscellaneous Cost	20,000/-			
TOTAL		4,12,000/-			



Indapur Taluka Shikshan Prasarak Mandal's
Arts, Science and Commerce College, Indapur
Department Of Botany
Certificate Course on Mushroom Cultivation
Academic Year (2022-2023)

Time Table

Sr. No.	Time	Date														
		3/3/23	4/3/23	6/3/23	7/3/23	8/3/23	9/3/23	10/3/23	11/3/23	13/3/23	14/3/23	15/3/23	16/3/23	17/3/23	18/3/23	
1	12.30 – 1.30	Theory MBB	Theory MBB	Theory KPS	Theory KPS	Theory MBB	Theory MBB	Theory KPS	Theory KPS	Theory KPS	Theory MBB	Theory MBB	Theory MBB	Theory MBB	Theory MBB	Theory MBB
2	1.30 - 2.30	Theory KPS	Theory KPS													
3	2.30- 4.30									Practical KPS	Practical KPS	Practical KPS	Practical MBB	Practical MBB	Practical MBB	Practical MBB



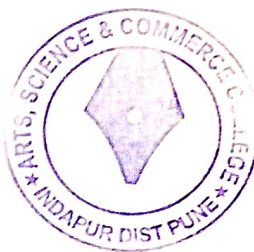
Indapur Taluka Shikshan Prasarak Mandal's
Art's Science And Commerce College Indapur
Department Of Botany
Certificate Course on Mushroom Cultivation

Students List

Academic Year (2022-2023)

Sr No.	Roll No.	STUDENT NAME	SIGN
1.	3004	KHABALE SAKSHI DHANAJI	KSD
2.	3009	LOKHANDE RENUKA UMESH	LRU
3.	3013	MULANI TANUJA MUNEER	MTM
4.	3014	LOKARE VISHAL JAYSING	LVS
5.	3015	SHENDE GAURI VIJAY	SGV
6.	3016	GIRI DNYANESHWARI SHANKAR	GDS
7.	3017	BORATE SHRAVANI ANIL	BSA
8.	3018	SHAIKH ALISHA ASLAM	SAA
9.	3019	SAKHARE APARNA SHIVAJI	SAS
10.	3020	THORAT DIPTI DIPAK	IDP
11.	3021	DEVKAR SNEHAL RAJENDRA	DSR
12.	3022	SARADE SIDDHESHWAR KANTILAL	SSK
13.	3025	BIBE PRANJALI VITTHAL	BPV
14.	3027	BIBE NILAM LAXMAN	BNL
15.	3029	GHODAKE NIKITA ASHOK	GNA
16.	3033	NIGADE SHIVANI PANDURANG	NSP
17.	3034	PANDIT SURAJ SATISH	PS
18.	3042	MORE OMKAR GURUNATH	MOG
19.	3043	DHUKHE SUJAL SHAHAJI	DS
20.	3044	KHADE SANKET BAPURAO	KS
21.	8002	NIGADE NIKITA HARI	NNH
22.	8003	MHETRE PRAJAKTA TATYARAM	MP

23.	8004	SARADE ARCHANA HANUMANT	<i>SAH</i>
24.	8005	MHETRE AMRUTA SANTOSH	<i>MAH</i>
25.	8006	SURWASE VISHWATEJ MAHADEV	<i>SVS</i>
26.	8007	THORAT KANCHAN DASHRATH	<i>TKD</i>
27.	8011	KECHE VAISHNAVI BALASAHEB	<i>KVB</i>
28.	8012	KOLAPE PRATIKSHA NAGNATH	<i>KPN</i>
29.	8013	WAGHMODE GANESH ANKUSH	<i>WAG</i>
30.	8014	WAGHMODE SUDIP MAHADEV	<i>SWM</i>
31.	8016	GAIKWAD DEVIKA MAHADEV	<i>GKD</i>
32.	8017	CHOPADE AMAR TANAJI	<i>CAH</i>
33.	8020	PHADATARE NIKHIL MILIND	<i>PNM</i>
34.	8023	PANDULE VISHAL RAJENDARA	<i>PVR</i>
35.	8024	RAUT AMRUTA RAMDAS	<i>RAM</i>
36.	8025	SHINDE RUTUJA VIJAY	<i>SRV</i>
37.	8026	DHAVALA VANASHRI SATYAWAN	<i>DVS</i>
38.	8028	BHONG PRATHMESH DADARAM	<i>BPD</i>
39.	8032	JADHAV SAYALI DEVIDAS	<i>JSV</i>
40.	8033	GANDHALE NIKITA JYOTIRAM	<i>GNJ</i>



**Indapur Taluka Shikshan Prasarak Mandal's
Arts, Science and Commerce College, Indapur
Department Of Botany
Certificate Course on Mushroom Cultivation
Academic Year (2022-2023)
Attendance**

[illegible]

24.	8005	MHETRE AMRUTA SANTOSH	P	P	P	P	P	A	P	P	P	P	P	P	A	A
25.	8006	SURWASE VISHWATEJ MAHADEV	P	P	A	P	P	P	P	P	P	A	P	P	P	A
26.	8007	THORAT KANCHAN DASHRATH	P	P	P	P	P	P	P	P	P	P	P	P	A	P
27.	8011	KECHE VAISHNAVI BALASAHEB	P	P	P	P	P	A	P	P	P	P	P	P	P	P
28.	8012	KOLAPE PRATIKSHA NAGNATH	P	P	A	P	P	P	P	P	P	P	P	P	P	P
29.	8013	WAGHMODE GANESH ANKUSH	P	P	P	A	P	P	P	P	P	P	P	P	P	P
30.	8014	WAGHMODE SUDIP MAHADEV	P	P	P	A	P	P	P	P	P	A	P	P	P	P
31.	8016	GAIKWAD DEVIKA MAHADEV	P	A	P	P	P	P	P	P	P	P	P	P	P	P
32.	8017	CHOPADE AMAR TANAJI	P	P	A	P	P	P	P	P	P	A	P	P	P	P
33.	8020	PHADATARE NIKHIL MILIND	P	P	P	P	P	P	P	A	P	P	P	P	P	P
34.	8023	PANDULE VISHAL RAJENDARA	P	P	P	P	P	P	P	P	P	P	P	P	A	P
35.	8024	RAUT AMRUTA RAMDAS	P	P	P	P	P	A	P	P	P	P	P	P	P	P
36.	8025	SHINDE RUTUJA VIJAY	P	P	P	P	P	P	P	P	P	P	P	P	P	P
37.	8026	DHAVALA VANASHRI SATYAWAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P
38.	8028	BHONG PRATHMESH DADARAM	P	P	P	P	P	P	P	P	P	P	P	P	P	P
39.	8032	JADHAV SAYALI DEVIDAS	P	P	P	P	P	P	P	P	P	P	P	P	P	P
40.	8033	GANDHALE NIKITA JYOTIRAM	P	P	P	P	A	P	P	P	P	P	P	P	P	P



Indapur Taluka Shikshan Prasarak Mandal's
Arts, Science and Commerce College, Indapur

Department Of Botany

Certificate Course on Mushroom Cultivation

Academic Year (2022-2023)

Students Feedback Form

1. Are you satisfied with course outcomes?

Yes

2. How would you rate the quality of teaching?

Good

3. Does your teachers completed the syllabus and clarified your queries?

Yes

4. Does your teachers use ICT tools for effective learning?

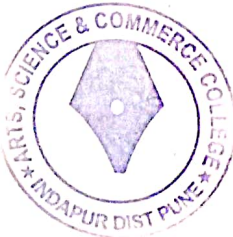
Yes

5. Overall impact of course

Good

6. Suggestions if any

No



Name of the Student Lokhande. Renuka. Umesh

Class F.Y.B.Sc.

Roll No. 3009

Sign : [Signature]

Indapur Taluka Shikshan Prasarak Mandal's
Arts, Science and Commerce College, Indapur
Department Of Botany
Certificate Course on Mushroom Cultivation
Academic Year (2022-2023)
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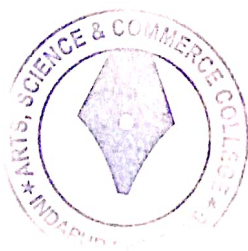
.....
Yes.....

5. Overall impact of course.....

.....
Good.....

6. Suggestions if any.....

.....
No.....



Name of the Student...Khubale..Sakshi..Phanaji..

Class...B.P.Y.B.Sc.....

Roll No...3004.....

Sign :...KSD.....

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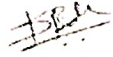
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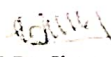
Certificate Course on Mushroom Cultivation
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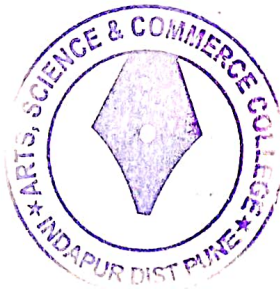
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Course Coordinator


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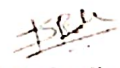
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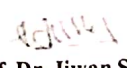
Certificate Course on Mushroom Cultivation
(Academic Year 2022-2023)

This is to certify that *Mulani Tanuja Muneer* a student from F. Y. B.Sc. Class has actively participated and successfully completed Certificate Course on Plant Propagation Techniques. This course is approved by Savitribai Phule Pune University, Pune and organized by Department of Botany, ITSPM's, Arts, Science and Commerce College, Indapur, Dist. Pune from 03.03.2023 to 18.03.2023


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Principal



**ARTS, SCIENCE AND COMMERCE COLLEGE INDAPUR,
DIST- PUNE**

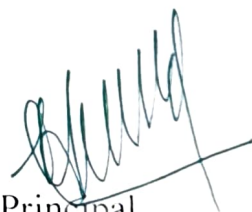
STUDENTS NOTICE 2022-23

Date: 02 /01/2023

All the students of F.Y.B.Sc and T.Y.B.Sc. those who have taken admission to the add-on course **“Wine Production From Pomegranate By Yeast (*Saccharomyces cerevisiae*)”** are hereby informed that , their regular theory and practicals will be conducted from 05\01\2023 to 18\01\2023 Attendance of all students is compulsory.



(Course Incharge)



Principal
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INDAPUR-413106 DIST-PUNE



ARTS, SCIENCE AND COMMERCE COLLEGE, INDAPUR

DEPARTMENT OF MICROBIOLOGY

**Add-On Course: Wine Production From Pomegranate By Yeast
(*Saccharomyces cerevisiae*)**

(Course Credit: 02) 2022-23

Sr.No.	Name of the Topics	Number of Lectures
1	Introduction	04
2	Wine Fermentation Processes	08
3	Nutritional value of pomegranate And Importance Of wine	08
4	Detection Method For Wine Production (Practical)	20

Chapter I – Introduction

04

Pomegranate *Punica granatum* L. is one of the Punicaceae Family. There Are different varieties of cultivars of pomegranate are available like Ganesh, Bhagwa, Ruby, Arakta and Mridula. Etc.

Chapter II-Wine Fermentation Processes

08

Anaerobic fermentation process. Material and Requirement of wine production . flow charts of wine production processes. Wine sensory aspects. Discussion about wine. Technique for wine making.

Chapter III-Nutritional value of pomegranate and importance of wine

08

Vitamin ,Electrolytes, Minerals,Protien,Carbohydrate, in pomegranate. Chemical Constituent and Therapeutic use of pomegranate Juice. Quality parameters of juice. Role of yeast in wine, Yeast nutrients ,Potassium Metabisulfite . Ativation process of yeast .Benifits of yeast addition.

Chapter- IV- Detection Method For Wine Production

20

1)Checking of Brix

2)checking of PH

3) Checking quality of wine

4)Checking parameter of juice



- 5) Checking parameter of wine
- 6) Colorimetric analysis
- 7) Statistical analysis (ANOVA TEST)
- 8) Checking of Temperature
- 9) Test for percentage of alcohol
- 10) Refractive index

Learning Objectives:

The students are expected to study

1. Knowing importance of the subject from the point of rural economy.
2. Knowing the composition of wine & nutritive value.
3. Understanding the Microbiology of the wine.
4. Understanding fermentation processes and various nutrients-role for the human body.
5. Knowing various composition, manufacture and uses wine .

References:

[1] Charushila V. Dhamne , Varsha A. Nikam , Kalyni H. Pagar , Sarita U. Mahajani, Sharddha S. Kulkarni, Sinhgde college of engineering , department of Biotechnology ,pune.

[2] Pazhani Saranraj , Pannerselvam Sivasakthivelan Murugadoss Naveen , Fermentation of fruit Wine and its Quality analysis , Department of Microbiology , sacred Heart college, Tirupattur, Tamil Nadu ,India. Department Agricultural Microbiology ,Annamalai university, Annamalai Nagar , Tamil Nadu , India .

[3] Sevda S. B and Rodrigues L, Department of Food Engineering And Fermentation technology ,University Institute of Chemical technology ,Matunga, The making of Pomegranate wine using yeast immobilised on sodium alginate.

[4] Aakriti Guleria , Abhilashi Institute of Life Science ,Deptment of Microbiology, Manali-175008, Himachal Pradesh ,India.



Course Incharge




Principal

PRINCIPAL
ARTS, SCIENCE AND
COMMERCE COLLEGE,
INDAPUR-413106 DIST-PUNE

ARTS, SCIENCE AND COMMERCE COLLEGE INDAPUR

Name of Add-On Course : Wine Production From

Pomegranate By Yeast (*Saccharomyces cerevisiae*)

Time Table (Theory) 2022-23

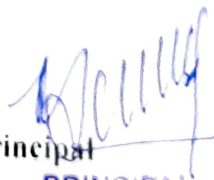
Date	Time	Name of Faculty
05.01.23	10am-12am	Misal R.
	1pm-3pm	
06.01.23	10am-12am	- Bhosale P.
	1pm-3pm	
7.01.23	10am-12am	Pathak M.
	1pm-3pm	
09.01.23	10am-12am	Raut S.
	1pm-3pm	
10.01.23	10am-12am	Misal R.
	1pm-3pm	

Time Table (Practical) 2022-23

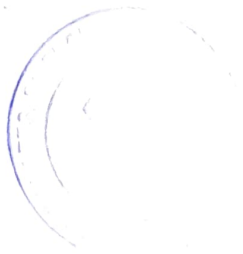
Date	Time	Name of Faculty
11.01.23	10am-12am	Bhosale P.
	1pm-3pm	-
13.01.23	10am-12am	Raut S.
	1pm-3pm	
16.01.23	10am-12am	Pathak M.
	1pm-3pm	
17.01.23	10am-12am	Misal R.
	1pm-3pm	
18.01.23	10am-12am	Raut S.
	1pm-3pm	



Bhosle Pooja
(Course Incharge)



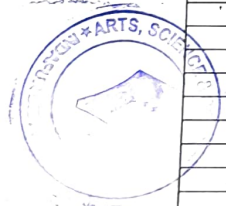
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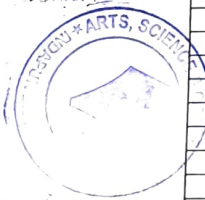
LIST OF ADMITTED STUDENTS 2022 -23

Name of Course: Wine Production From Pomegranate By Yeast (*Saccharomyces cerevisiae*)

Sr.No	Roll No	Name of Students	05/01/23	06/01/23	07/01/23	09/01/23	10/01/23	11/01/23	13/01/23	16/01/23	17/01/23	18/01/23
1	3002	JAGTAP SHUBHANGI	P	P	P	P	P	P	P	P	P	P
2	3009	LOKHANDE RENUKA	P	P	P	P	P	P	P	P	P	P
3	3013	MULANI TANUJA MUNEER	P	P	P	P	P	P	P	P	P	P
4	3019	SAKHARE APARNA SHIVAJI	P	P	P	P	P	P	P	P	P	P
5	3020	THORAT DIPTI DIPAK	P	P	P	P	P	P	P	P	P	P
6	3026	PATIL ANKITA	A	P	P	P	P	P	P	P	P	P
7	3034	PANDIT SURAJ SATISH	P	P	P	P	P	P	P	P	P	P
8	3052	RAUT RUTUJA	P	A	P	P	P	P	P	P	P	P
9	3055	MHETRE RUTUJA SHIVAJI	P	P	A	P	P	P	P	P	P	P
10	3063	PAWAR SAYALI	P	P	P	P	P	P	P	P	P	P
11	3068	SHINDE DIPALI MOHAN	A	P	P	P	P	P	P	P	P	P
12	3086	INGOLE MANSI DADARAM	P	P	P	P	P	P	P	P	P	P
13	3099	KUBADE ROHINI BAPURAO	P	P	A	P	P	P	P	P	P	P
14	3116	DHAVAL SWAPNIL	P	P	P	P	P	P	P	P	P	P
15	3128	DHUDUKNALE DHANRAJ	P	P	P	P	P	P	P	P	P	P
16	3184	GOSAVI NIKITA MININATH	P	A	P	P	P	P	P	P	P	P
17	3185	CHAVAN TEJAS MAHADEV	P	P	P	P	P	P	P	P	P	P
18	3193	MOMIN SHIFA ASHPAK	P	P	P	P	P	P	P	P	P	P
19	3198	SHENDE VAISHNAVI	A	P	P	P	P	P	P	P	P	P
20	3206	CHIGALE SHRIKANT	P	P	A	P	P	P	P	P	P	P
21	3215	SATPUTE SNEHAL	P	P	P	P	P	P	P	P	P	P
22	3217	MOHOLKAR YASHRAJ	P	P	P	P	P	P	P	P	P	P
23	3222	BARAL YOGITA NARAYAN	P	A	P	P	P	P	P	P	P	P
24	3223	KUMBHAR MEGHA	P	P	P	P	P	P	P	P	P	P
25	3228	BHONGALE RAVIRAJ	P	A	P	P	P	P	P	P	P	P
26	3234	DHARNE RESHMA	P	P	P	P	P	P	P	P	P	P
27	3237	SITAP VIRAJ VIKAS	P	P	A	P	P	P	P	P	P	P
28	3244	KOKARE SHREYASH	P	P	P	P	P	P	P	P	P	P
29	3247	BHANDALKAR SHITAL	P	P	A	P	P	P	P	P	P	P
30	3250	LENGARE GANESH	P	P	P	P	P	P	P	P	P	P
31	3251	HANDE ADITYA MARUTI	P	P	P	P	P	P	P	P	P	P
32	3255	BHOJANE PRANAV RAHUL	P	P	P	P	P	P	P	P	P	P
33	3256	PANDHARMISE ASHWINI	P	A	P	P	P	P	P	P	P	P
34	3277	NICHAL ASMITA ARUN	P	P	P	P	P	P	P	P	P	P
35	9001	MARKAD PRANAY	P	P	P	P	P	P	P	P	P	P



36	9005	NALVADE NIKITA SUNIL	P	P	P	P	A	P	P	P	P	P
37	9006	GHOHARE VAIBHAVI	P	P	P	A	P	P	P	P	P	P
38	9008	SABALE VAISHANAVI	P	P	A	P	P	P	P	P	P	P
39	9010	THORAT KSHITIJ BHARAT	A	P	P	P	P	A	A	P	P	P
40	9020	GURGUDE PRAJAKTA	P	P	P	P	P	P	P	A	P	P
41	9023	TIPALE ASHWINI	P	P	A	P	P	P	P	P	P	P
42	9027	KAKADE JAYASHRI POPAT	P	A	P	P	A	P	P	P	P	P
43	9033	VIRKAR PRAJAKTA	P	P	P	P	P	P	P	P	A	P
44	9034	SAYYAD KAREENA	P	P	P	A	P	P	P	P	P	A
45	9036	WAGHMODE VAISHANAVI	P	P	P	P	P	A	P	P	P	P
46	9037	TARANGE SWAPNALI	P	P	P	P	P	P	P	P	P	P
47	9038	BHONG PRAGATI LAXMAN	A	P	P	P	P	P	P	P	P	P
48	9044	JADHAV DIPANJALI	P	P	P	P	P	P	A	P	P	A
49	9191	MULANI MUSKAN DADA	P	P	A	P	P	P	P	A	P	P
50	9212	PONDKULE MANSI	P	P	P	P	P	P	P	P	A	P
51	9002	KUDALE POOJA MARUTI	P	A	P	P	P	P	P	P	P	P
52	9003	SHENDE NIKITA GOPAL	P	P	P	P	P	P	A	P	P	P
53	9004	KHARAT ARCHANA	P	P	P	P	P	P	P	P	P	P
54	9007	KUMBHAR SWAPNALI	P	P	P	P	P	A	P	P	P	P
55	9009	VIRKAR SUPRIYA APPA	P	P	P	P	A	P	P	P	P	A
56	9011	JAGTAP KOMAL	A	P	P	A	P	P	A	P	P	P
57	9012	DHAVAL AKSHAY	P	P	P	P	P	P	P	P	A	P
58	9013	SALUNKE KOMAL SHIVAJI	P	P	P	P	P	P	P	P	P	P
59	9014	PATIL OMKAR DIGAMBAR	P	P	P	P	P	A	P	A	P	P
60	9015	BARBOLE SWARAJ	P	P	P	P	P	P	P	P	P	A
61	9016	JANGAM SHWETA	P	P	A	P	P	P	P	P	P	P
62	9017	GOPHANE ANNA MARUTI	P	A	P	P	A	P	P	P	P	P
63	9018	GHADGE TEJASHRI	P	P	P	P	P	P	P	P	P	P
64	9019	DOLE SNEHAL DIPAK	P	P	P	P	P	P	P	P	P	P
65	9021	PATIL PRAKASH ARUN	P	P	P	P	P	P	P	P	P	P
66	9022	CHOPADE JYOTI	P	P	P	P	P	P	A	P	P	P
67	9024	ZALKE PRAVIN SUNIL	A	P	A	P	P	P	P	P	P	P
68	9026	BAGAL TEJASHRI HARIDAS	P	P	P	A	P	P	P	P	A	P
69	9028	MANE SIDDHI RAMESH	P	P	P	P	P	P	P	P	P	A
70	9029	CHAVAN TUSHAR	P	P	P	P	P	P	P	P	P	P
71	9030	PRATAP GANESH	P	A	P	P	P	P	P	P	P	P
72	9031	WAGHMODE SHANKAR	P	P	P	P	P	P	P	P	P	P
73	9035	DANGE SANKET	P	P	P	P	P	P	P	P	P	P
74	9040	DONGARE SHRAVANI	P	P	P	P	A	P	P	P	P	P



75	9041	PAWAR DHIRAJ SATISH	P	P	P	P	P	P	P	A	P	P
76	9042	SHINDE RADHIKA RAMDAS	P	A	P	P	P	P	A	P	P	P
77	9043	JADHAV VISHWA	P	P	P	A	P	A	P	P	P	A
78	9045	KUTAL SAYALI MOHAN	A	P	P	P	P	P	P	P	A	P
79	9046	KUTAL PRATIKSHA	P	P	A	P	P	P	P	P	P	P
80	9047	DEOKAR SNEHAL ANIL	P	P	P	P	A	P	P	P	P	P



ARTS, SCIENCE AND COMMERCE COLLEGE INDAPUR

Name of Add-On Course : Wine Production From Pomegranate By Yeast (*Saccharomyces cerevisiae*)

COURSE COMPLETION REPORT 2022-23

The add-on course "**Wine Production From Pomegranate By Yeast (*Saccharomyces cerevisiae*)**" has conducted from 05.01.2023 to 18.01.2023 and been successfully completed on 18\01\2024 Total 80 students were admitted for course. The students understand about fermentation process of wine, material and requirement of wine production . how to take precautions about storage and handling of wine , Physical properties and different types of wine etc. And their manufacturing processes. Similarly students also the information about the fermentation processes of wine. so the course will be most useful for students. After completion of this course , certificates are distributed to all participated students.



Prof. Pooja Bhosle
(Course Incharge)





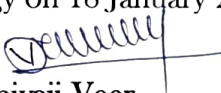
**Indapur Taluka Shikshan Prasarak Mandal's
Arts, Science and Commerce College, Indapur, Pune**

"Add-On Course Completion Certificate -2023"

Certificate of Appreciation

This is to certify that Mr./Ms. Baral Yogita Narayan, Arts,
Science and Commerce College, Indapur has actively participated in Add-On Course **“: Wine
Production From Pomegranate By Yeast (*Saccharomyces cerevisiae*)** organized by Department
of Microbiology on 18 January 2023.


Prof. Pooja Bhosle
Course Incharge


Dr. Shivaji Veer
Incharge Science Faculty


Dr. Jiwan Sarwade
Principal

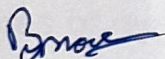


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DIST- PUNE

STUDENTS NOTICE 2022-23

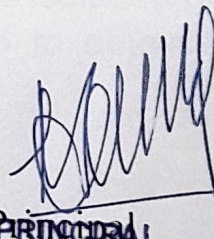
Date: 03 /01/2023

All the students of F.Y.B.Sc and T.Y.B.Sc. Those who have taken admission to the add-on course **“Isolation of Microorganisms”** are hereby informed that , their regular theory and practicals will be conducted from 05\01\2023 to 19\01\2023 Attendance of all students is compulsory.



Prof. Vivek More

(Course Incharge)



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ARTS, SCIENCE AND COMMERCE COLLEGE, INDAPUR
DEPARTMENT OF MICROBIOLOGY

Add-On Course: Isolation of Microorganisms
(Course Credit: 02) 2022-23

Sr.No.	Name of the Topics	Number of Lectures
1	Introduction	04
2	Methods of Isolation:	08
3	Isolation technique?	08
4	Isolation of Microorganisms	20

Chapter I – Introduction

04

The process of obtaining a pure culture by separating one species of microbe from a mixture of other species, is known as isolation of the organisms. There are special techniques employed to obtain pure cultures of microorganisms.

Chapter II- Methods of Isolation:

08

- Tissue planting method (for fungi and bacteria)
- Dilution plate method (for highly sporulating fungi and bacteria from soil)
- Double plate method (for fungi, especially good for phycomycetes, ascomycetes and basidiomycetes)
- Baiting method (for fungi)

08

Chapter III- Isolation technique

- 1) distillation;
- (2) extraction;
- (3) pressing;



- (4) filtration;
- (5) chromatography.

Chapter- IV Isolation of Microorganisms

20

The process of obtaining a pure culture by separating one species of microbe from a mixture of other species, is known as isolation of the organisms.

Sterilize the inoculating loop in the bunsen burner until it is red hot. Allow it to cool. 2. Pick an isolated colony from the agar plate culture and spread it over the first quadrant (approximately 1/4 of the plate). 3. Flame the loop. 4. Turn the plate 90, then streak into the next quadrant without overlapping the previous streaks. 5. Flame the loop. 6. Turn the plate 90°, and streak into the next quadrant as in step 4. 7. Flame the loop. 8. Repeat streaking the remainder of the plate. 9. Invert the plate and incubate at 37°C for 24 hr.

Learning Objectives:

The students are expected to study

1. Knowing importance of the subject from the point of rural economy.
2. Serial dilution (Isolation from soil).
3. Understanding the Microbiology of isolation of microorganisms
4. The study of cell physiology, interactions between cells, as well as for the search of new metabolites, such as antibiotics and enzymes
5. Characterization of microorganism

References:

- [1] Charushila V. Dhamne , Varsha A. Nikam , Kalyni H. Pagar , Sarita U. Mahajani, Sharddha S. Kulkarni, Sinhgde college of engineering , department of Biotechnology , Pune.
- [2] Pazhani Saranraj , Pannerselvam Sivasakthivelan Murugadoss Naveen , Fermentation of fruit Wine and its Quality analysis , Department of Microbiology , sacred Heart college, Tirupattur, Tamil Nadu ,India. Department Agricultural Microbiology , Annamalai university, Annamalai Nagar , Tamil Nadu , India .
- [3] Sevda S. B and Rodrigues L, Department of Food Engineering And Fermentation technology ,University Institute of Chemical technology ,Matunga, The making of Pomegranate wine using yeast immobilised on sodium alginate.

Prof. Vivek More

Prof. Vivek More

Course Incharge

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ARTS, SCIENCE AND COMMERCE COLLEGE INDAPUR
Name of Add-On Course : “Isolation of Microorganisms”

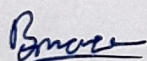
Time Table (Theory) 2022-23

Date	Time	Name of Faculty
05.01.23	10am-12am	More V.
	1pm-3pm	
06.01.23	10am-12am	Kharade S.
	1pm-3pm	
08.01.23	10am-12am	Pathak M.
	1pm-3pm	
09.01.23	10am-12am	Devkate R.
	1pm-3pm	
10.01.23	10am-12am	More V.
	1pm-3pm	

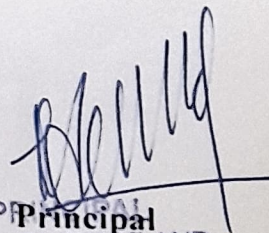


Time Table (Practical) 2022-23

Date	Time	Name of Faculty
11.01.23	10am-12am	More V.
	1pm-3pm	
12.01.23	10am-12am	Devkate R.
	1pm-3pm	
16.01.23	10am-12am	Pathak M.
	1pm-3pm	
18.01.23	10am-12am	Kharade S.
	1pm-3pm	
19.01.23	10am-12am	Raut K.
	1pm-3pm	



Prof. More Vivek
(Course Incharge)



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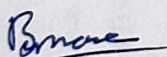


ARTS, SCIENCE AND COMMERCE COLLEGE INDAPUR

Name of Add-On Course : "Isolation of Microorganisms"

COURSE COMPLETION REPORT 2022-23

The add-on course "Isolation of Microorganisms" has conducted from 05.01.2023 to 19.01.2023 and been successfully completed on 19\01\2023 .Total 80 students were admitted for course. The students understand about isolation of Microorganisms . How to take precautions while isolation of Microorganisms . Similarly students also the information about separating a single species of microorganism from its natural habitats so the course will be most useful for students. After completion of this course , certificates are distributed to all participated students.



Prof. More Vivek

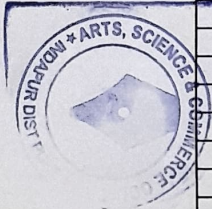
(Course Incharge)



LIST OF ADMITTED STUDENTS 2022 -23

Name of Course: Isolation of Microorganism

Sr.No	Roll No	Name of Students	05/01	06/01	08/01	09/01	10/01	11/01	12/01	16/01	18/01	19/01
1	3002	JAGTAP SHUBHANGI NILESH	P	P	P	P	P	P	P	P	P	
2	3009	LOKHANDE RENUKA UMESH	P	P	P	P	P	P	P	P	P	P
3	3013	MULANI TANUJA MUNEEER	P	P	P	P	P	P	P	P	P	P
4	3019	SAKHARE APARNA SHIVAJI	P	P	P	P	A	P		P	P	P
5	3020	THORAT DIPTI DIPAK	P	P	P	A	P	P	P	P	A	P
6	3026	PATIL ANKITA SHRIKRUSHNA	P	A	P	P	P	A	P	A	P	A
7	3034	PANDIT SURAJ SATISH	P	P	P	P	P	P	P	P	P	P
8	3052	RAUT RUTUJA CHANDRAKANT	A	P	P	P	P	P	P	P	P	P
9	3055	MHETRE RUTUJA SHIVAJI	P	P	P	P	P	P	P	P	P	A
10	3063	PAWAR SAYALI CHANDRAKANT	P	P	A	A	P	P	P	P	P	P
11	3068	SHINDE DIPALI MOHAN	P	P	P	P	A	P	P	P	P	P
12	3086	INGOLE MANSI DADARAM	P	P	P	P	P	P	P	P	P	P
13	3099	KUBADE ROHINI BAPURAO	P	P	P	P	P	P	P	P	A	P
14	3116	DHAVAL SWAPNIL SAUDAGAR	P	P	P	P	P	A	A	P	P	P
15	3128	DHODUKNALE DHANRAJ TANAJI	P	P	P	P	P	P	P	A	P	P
16	3184	GOSAVI NIKITA MININATH	P	P	P	P	P	P	P	P	P	A
17	3185	CHAVAN TEJAS MAHADEV	P	P	A	P	A	P	P	P	P	P
18	3193	MOMIN SHIFA ASHPAK	A	P	P	P	P	P	P	P	P	P
19	3198	SHEHDE VAISHNAVI AJINATH	P	A	P	P	P	P	P	P	P	P
20	3206	CHIGALE SHRIKANT BALAJI	P	P	P	A	P	P	P	A	P	P
21	3215	SATPUTE SNEHAL SUBHASH	P	P	P	P	P	P	P	P	A	P
22	3217	MOHOLKAR YASHRAJ PRATAP	P	P	P	P	P	P	P	P	P	A
23	3222	BARAL YOGITA NARAYAN	P	P	P	P	P	A	A	P	P	P
24	3223	KUMBHAR MEGHA DATTATRAY	P	P	P	P	P	P	P	P	P	P
25	3228	BHONGALE RAVIRAJ BHARAT	P	P	A	A	P	P	P	P		P
26	3234	DHARNE RESHMA DHONDIRAM	P	P	P	P	P	P	P	A	P	A
27	3237	SITAP VIRAJ VIKAS	P	P	P	P	P	P	P	P	P	P
28	3244	KOKARE SHREYASH DADARAM	A	P	P	P	P	P	P	P	P	P
29	3247	BHANDALKAR SHITAL SHIVAJI	P	P	P	P	P	P	P	P	P	P
30	3250	LENGARE GANESH TATYABA	P	P	A	P	P	A	P	A	A	P
31	3251	HANDE ADITYA MARUTI	P	A	P	A	P	P	A	P	P	P





32	3255	BHOJANE PRANAV RAHUL	P	P	P	P	P	A	P	P	A	P
33	3256	PANDHARMISE ASHWINI SUBHASH	P	P	P	P	P	P	A	P	P	P
34	3277	NICHAL ASMITA ARUN	P	P	P	A	P	P	P	P	P	P
35	9001	MARKAD PRANAY NAVNATH	P	P	P	P	P	P	P	P	P	P
36	9005	NALVADE NIKITA SUNIL	P	P	A	P	P	P	P	A	P	P
37	9006	GHOHARE VAIBHAVI RAJENDRA	A	P	P	P	A	P	P	P	P	A
38	9008	SABALE VAISHANAVI RAMCHANDRA	P	P	P	P	P	P	P	P	A	P
39	9010	THORAT KSHITIJ BHARAT	P	P	P	P	P	P	A	P	P	P
40	9020	GURGUDE PRAJAKTA SHRIDHAR	P	P	P	P	P	P	P	P	P	P
41	9023	TIPALE ASHWINI RAMCHANDRA	P	P	P	P	P	P	P	P	P	P
42	9027	KAKADE JAYASHRI POPAT	P	A	P	A	P	P	P	P	A	P
43	9033	VIRKAR PRAJAKTA SANJAY	P	P	A	P	P	P	P	P	P	A
44	9034	SAYYAD KAREENA KAYYUM	P	P	P	P	P	P	P	A	P	P
45	9036	WAGHMODE VAISHANAVI KAILIDAS	P	P	P	P	A	A	P	P	P	P
46	9037	TARANGE SWAPNALI SANJAY	A	P	P	P	P	P	A	P	P	P
47	9038	BHONG PRAGATI LAXMAN	P	P	P	P	P	P	P	P	A	P
48	9044	JADHAV DIPANJALI SANTOSH	P	P	A	P	P	P	P	P	P	P
49	9191	MULANI MUSKAN DADA	P	A	P	P	A	P	P	P	P	P
50	9212	PONDKULE MANSI DADARAM	P	P	P	P	P	P	P	P	P	A
51	9002	KUDALE POOJA MARUTI	P	P	P	A	P	P	P	P	P	P
52	9003	SHENDE NIKITA GOPAL	P	P	P	P	P	P	P	P	P	P
53	9004	KHARAT ARCHANA JAYVANT	P	P	P	P	P	A	P	A	P	P
54	9007	KUMBHAR SWAPNALI KASHINATH	A	P	P	P	P	P	A	P	P	P
55	9009	VIRKAR SUPRIYA APPA	P	P	P	P	A	P	P	P	P	P
56	9011	JAGTAP KOMAL TATYASAHEB	P	A	A	P	P	P	P	P	P	P
57	9012	DHAHALE AKSHAY MALHARI	P	P	P	P	P	P	P	P	P	P
58	9013	SALUNKE KOMAL SHIVAJI	P	P	P	P	P	P	P	P	P	A
59	9014	PATIL OMKAR DIGAMBAR	P	P	P	A	A	P	A	P	A	P
60	9015	BARBOLE SWARAJ NAGNATH	P	P	P	P	P	A	P	A	P	P
61	9016	JANGAM SHWETA SAURASHTRA	A	A	P	P	P	P	P	P	P	P
62	9017	GOPHANE ANNA MARUTI	P	P	A	P	P	P	P	P	P	P
63	9018	GHADGE TEJASHRI HANUMANT	P	P	P	P	P	A	P	P	P	P
64	9019	DOLE SNEHAL DIPAK	P	P	P	P	P	P	P	P	P	A
65	9021	PATIL PRAKASH ARUN	P	A	P	A	P	P	P	A	P	P

66	9022	CHOPADE JYOTI NAGANATH	P	P	P	P	A	P	P	P	P	P	P
67	9024	ZALKE PRAVIN SUNIL	P	A	P	P	P	P	P	P	P	P	P
68	9026	BAGAL TEJASHRI HARIDAS	P	P	P	A	P	P	P	P	P	P	A
69	9028	MANE SIDDHI RAMESH	A	P	A	P	P	A	P	P	P	P	P
70	9029	CHAVAN TUSHAR DNYANDEO	P	P	P	P	P	P	A	A	P	P	P
71	9030	PRATAP GANESH BHOSALE	P	P	P	P	P	P	P	P	A	P	P
72	9031	WAGHMODE SHANKAR DHULA	A	P	P	P	P	P	P	P	P	P	A
73	9035	DANGE SANKET BIBHISHAN	P	P	P	A	P	P	P	P	P	P	P
74	9040	DONGARE SHRAVANI BHARAT	P	A	P	P	P	P	P	P	A	P	P
75	9041	PAWAR DHIRAJ SATISH	P	P	A	P	A	P	P	A	P	P	P
76	9042	SHINDE RADHIKA RAMDAS	P	P	P	P	P	A	P	P	P	P	P
77	9043	JADHAV VISHWA NARAYAN	P	P	P	P	P	P	A	P	P	P	A
78	9045	KUTAL SAYALI MOHAN	P	A	P	P	P	P	P	P	P	P	P
79	9046	KUTAL PRATIKSHA KALYAN	A	P	P	A	P	P	P	P	A	P	P
80	9047	DEOKAR SNEHAL ANIL	P	P	A	P	P	P	P	P	P	P	P

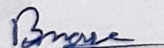


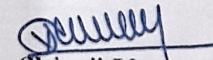


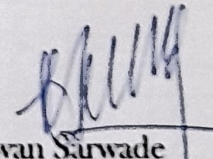
Indapur Taluka Shikshan Prasarak Mandal's
Arts, Science and Commerce College, Indapur, Pune
"Add-On Course Completion Certificate -2023"

Certificate of Appreciation

This is to certify that Mr./Ms. JAGTAP SHUBHANGI NILESH. Arts,
Science and Commerce College, Indapur has actively participated in Add-On Course "**Isolation
of Microorganiseams**" organized by Department
of Microbiology on 19 January 2023.


Prof. More Vivek
Course Incharge


Dr. Shivaji Veer
Incharge Science Faculty


Dr. Jiwan Sarwade
Principal



ITSPM's
Arts, Science and Commerce College, Indapur
Department of Statistics

Value added course

2022-23

Course Title: R-Programming

2- Credit

Course Objectives

1. Acquire knowledge in essential programming skills in R.
2. Visualize a given data, perform descriptive analysis and carry out a project using R Programming.

Course Outcomes

After successful completion of the course, a student will be able to perform the following using R Programming

CO1: Demonstrate basic programming skills in R

CO2: Describe and illustrate the data

CO3: Design and carryout a project with statistical analysis using R Programming and present the report.

SYLLABUS

UNIT – I

Introduction to R: – Overview, Environment Setup, Basic Syntax, Data types.

R Basics: – Variables, Operators, Decision Making, Loops, Functions, Strings, Vectors, Lists, Matrices, Arrays, Factors, Data Frames, Packages.

UNIT – II

Data visualisation: – Pie Charts, Bar Charts, Area Charts, Bubble Charts, Surface charts, , Waterfall charts, Box Plots, Violin plots, Histograms, Line Graphs, Scatter plots, Matrix plots.

Statistical Analysis in R: – Descriptive statistics: measures of central tendency, measures of dispersion, partition values, moments, skewness and kurtosis, Regression.


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Arts, Science And Commerce College, Indapur

Department of Statistics

Notice for Student

Date-01/02/2023

All the Student who registered their names to 'Value added Course in R Programming' are hereby informed that their lectures and practicals will be started on Saturday, 04/02/2023 in Room No. 66 at 12 pm to 1 pm. It is compulsory to attain the lectures of value added course for getting desired credit.


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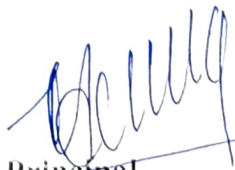
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Arts, Science And Commerce College , Indapur
Department Of Statistics
Value added Course in R-Programming
2022-23
Timetable

Time	Friday	Saturday
12 Pm To 1 Pm	Theory	-
2 Pm To 3 Pm	-	Practical


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Department of Statistics
Value added Course in R-Programming

List of Registered Students
Academic Year 2022-23

Sr.No.	Roll.No.	Student Name	Class
1.	3001	Bagal Prasad Haridas	F.Y.B.Sc.
2.	3032	Borate Vaishnavi Bapurav	F.Y.B.Sc.
3.	3040	Gawade Nikita Mohan	F.Y.B.Sc.
4.	3058	Manojkumar Aman Priyanshu	F.Y.B.Sc.
5.	3101	Gavade Yuvraj Gopal	F.Y.B.Sc.
6.	3118	Bhosale Yuvraj Rajesh	F.Y.B.Sc.
7.	3125	Chandankar Sandhyarani Dadaso	F.Y.B.Sc.
8.	3230	Kumbhar Sourabh Navnath	F.Y.B.Sc.
9.	3233	Thokale Purna Sunil	F.Y.B.Sc.
10.	8008	Kare Suraksha Parashuram	S.Y.B.Sc.
11.	8009	Gutal Pradnya Kanifnath	S.Y.B.Sc.
12.	8018	Jagtap Arati Arjun	S.Y.B.Sc.
13.	8019	Bale Vinayajyothi Kirankumar	S.Y.B.Sc.
14.	8021	Bale Anusha Kirankumar	S.Y.B.Sc.
15.	8022	Pawar Kalyani Ashok	S.Y.B.Sc.
16.	8030	Dolas Jayshri Siddheshwar	S.Y.B.Sc.
17.	8031	Bansode Priya Annasaheb	S.Y.B.Sc.
18.	8050	Shaikh Alfiya Aslam	S.Y.B.Sc.
19.	8203	Baral Arpita Subhash	S.Y.B.Sc.
20.	8038	Bhosale Madhuri Navnath	S.Y.B.Sc.


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Department of Statistics
Value added Course in R-Programming

Attendance Sheet

Academic Year 2022-23

Sr.No.	Roll.No.	Student Name	01/03	04/03	10/03	13/03	17/03	26/03
1.	3001	Bagal Prasad Haridas	P	P	P	P	P	P
2.	3032	Borate Vaishnavi Bapurav	P	P	P	P	P	P
3.	3040	Gawade Nikita Mohan	P	P	P	P	P	P
4.	3058	Manojkumar Aman Priyanshu	P	P	P	P	P	P
5.	3101	Gavade Yuvraj Gopal	P	P	P	P	P	P
6.	3118	Bhosale Yuvraj Rajesh	P	P	A	P	P	P
7.	3125	Chandankar Sandhyarani Dadaso	P	P	P	P	P	P
8.	3230	Kumbhar Sourabh Navnath	P	P	A	P	P	P
9.	3233	Thokale Prerna Sunil	P	P	P	P	P	P
10.	8008	Kare Suraksha Parashuram	P	P	A	P	P	P
11.	8009	Gutal Pradnya Kanifnath	P	P	P	A	P	P
12.	8018	Jagtap Arati Arjun	P	P	P	P	P	P
13.	8019	Bale Vinayajyothi Kirankumar	P	P	P	P	P	P
14.	8021	Bale Anusha Kirankumar	P	P	P	A	P	P
15.	8022	Pawar Kalyani Ashok	P	P	P	P	P	P
16.	8030	Dolas Jayshri Siddheshwar	P	P	P	P	A	P
17.	8031	Bansode Priya Annasaheb	P	P	P	P	P	P
18.	8050	Shaikh Alfiya Aslam	P	P	A	P	P	P
19.	8203	Baral Arpita Subhash	P	P	A	P	P	P
20.	8038	Bhosale Madhuri Navnath	P	P	P	A	P	P

H.O.D

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Indapur Taluka Shikshan Prasarak Mandal's,
Arts, Science and Commerce College,
Indapur, Dist. Pune

(Affiliated to Savitribai Phule Pune University, Pune)



Organized

**Value added course in R-Programming
(Academic Year 2022-23)**

This is to certify that *Thokale Prerna Sunil* a student from F. Y. B.Sc. Class has actively participated and successfully completed value added course in R-Programming (2 Credits). This course is organized by Department of Statistics, ITSPM's, Arts, Science and Commerce College, Indapur, Dist. Pune from 04.02.2023 to 14.02.2023

Prof. Prasad Kamble
Course Co-ordinator

Prof. Dr. Shivaji Veer
IQAC Co-ordinator

Prof. Dr. Jiwan Sarwade
Principal