

**Shri Shivaji Education Society's
Board for Higher Education Vidyanagar Karad.**



YASHWANTRAO CHAVAN COLLEGE OF SCIENCE, KARAD

Course code:-CCF02

DEPARTMENT OF BIOTECHNOLOGY

SHORT TERM COURSE

INDUSTRIAL BIOTECHNOLOGY

2023-24

Index

Total Students: 20

Duration: 03 Months

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Estd. 1958

|| Be One with the downtrodden and the underprivileged ||
Shri Shivaji Education Society Karad, Board For Higher Education's

YASHWANTRAO CHAVAN COLLEGE OF SCIENCE, KARAD

Vidyanagar, KARAD - 415 124 Dist. Satara (Maharashtra)

☎ 02164 - 271356, 271357 Fax : 02164-271356, e-mail : prinyccsk@gmail.com

Reaccredited B⁺⁺ Level by NAAC, Bangalore

AN ISO 9001-2015 CERTIFIED COLLEGE REG. NO. : RQ91/5237

Department of Biotechnology

Year 2023-2024

Syllabus Approved Letter

Date : 01 /11/2023

The IQAC Committee has approved the syllabus of the short term course to be conducted by the Department of Biotechnology.

Sr. No.	Name of The Course	Type of The Course
1	Industrial Biotechnology	Short Term Course



Co-ordinator
Short term Course


IQAC Coordinator


Co-ordinator
Biotech. Dept.


Principal



Estd. 1958

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Department of Biotechnology

Certificate course In "Industrial Biotechnology"

Year 2023-2024

Board of Studies (BOS)

Date : 05 /11/2023

Certificate Course in "Industrial Biotechnology" is going to start in the Department of Biotechnology, Yashwantrao Chavan College of Science, Karad. Following committee is constituted for syllabus framing of the said course

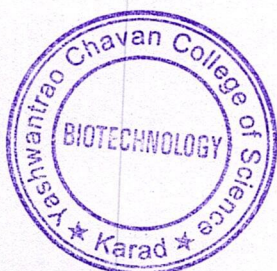
Board of Studies (BOS) members

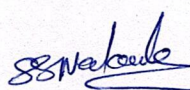
Sr.No	Members	Designation	Signature
1	Principal Dr. S. B. Kengar	Chairman	
2	Prof. Dr. S. H. Burungale	IQAC Coordinator	
3	Mrs. J. S. Patil	Course Coordinator	
4	Dr. A. A. Raut	Subject Expert	



Course Contents

Unit No.	Title	No. of Hours
1	Biofertilizers: <ol style="list-style-type: none"> Introduction, overview of various agricultural and biochemical products produced using microorganisms. Definition and types, importance of biofertilizers in agriculture. Characteristics of biofertilizers – <i>Rhizobium</i>, <i>Azotobacter</i>, <i>Azospirillum</i>, PSB microorganisms, <i>Cyanobacteria</i>, <i>Azolla</i>, <i>Mycorrhizae</i>. Production Technology. 	10
2	Biopesticide Introduction, overview of various agricultural and biochemical products produced using microorganisms. <ol style="list-style-type: none"> Definition and types, importance of biopesticides in agriculture Characteristics of Biopesticide Production Technology. 	10
3	List of Practical's <ol style="list-style-type: none"> Production of <i>Rhizobium</i> biofertilizer. Isolation of <i>Azotobacter</i> from soil sample. Laboratory production of Azofertilizer using isolate. Isolation of <i>Azospirillum</i> from soil. Production of <i>Azospirillum</i> biofertilizer. Isolation of BGA 	10




Course Co-ordinator
 Department of Biotechnology

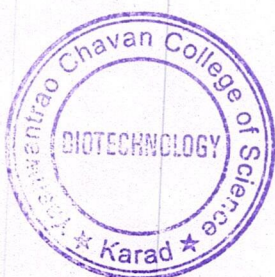
YASHWANTRAO CHAVAN COLLEGE OF SCIENCE, KARAD

Department of Biotechnology

Notice

Date: 05/11/2023

All the Students of the B. Sc. III are hereby informed that the Department of Biotechnology is going to run a short-term course entitled as “**Industrial Biotechnology**” Interested Candidates enrol their names to Mrs. J .S .Patil (course Co-ordinator) on or before 20th November 2023.



J. S. Patil
Course Co-ordinator
Department of Biotechnology

YASHWANTRAO CHAVAV COLLEGE OF SCIENCE, KARAD

Department of Biotechnology

Short Term Course

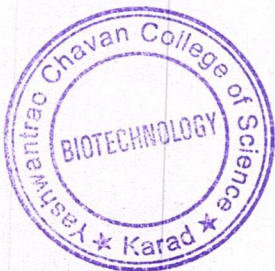
"Industrial Biotechnology"

Year 2023 - 2024

Name of the Enrolled Students

Date: 01 /12/2023

Sr. No.	Roll No.	Name of the Students	Signature
1	3001	Adsule Prathamesh Bhaskar	<i>Adsule</i>
2	3002	Bhosale Harshvardhan Ajay	<i>Bhosale</i>
3	3003	Chavan Sanjana Anil	<i>Chavan</i>
4	3004	Chavan Sanskar Pratap	<i>Chavan</i>
5	3005	Jadhav Madhura Sudhakar	<i>Madhav</i>
6	3006	Jadhav Rutuja Vikram	<i>Radhav</i>
7	3007	Kajave Shritej Rajaram	<i>Shritej</i>
8	3008	Kale Saniya Dayanand	<i>S.P.Kale</i>
9	3009	Kolhapure Sayali Vidyasagar	<i>Kolhapure</i>
10	3010	Kumbhar Nikhil Chandrakant	<i>Kumbhar</i>
11	3011	Latey Riya Ranjit	<i>Latey</i>
12	3012	Patil Manasi Arvind	<i>Patil</i>
13	3013	Patil Vedashri Sanjay	<i>Patil</i>
14	3014	Salunkhe Rutuja Krushnat	<i>Salunkhe</i>
15	3015	Shinde Pranali Shankarrao	<i>Shinde</i>
16	3016	Tate Utkarsha Vasant	<i>WTate</i>
17	3017	Thorat Shivam Dattatray	<i>Thorat</i>
18	3018	Varpe Rutuja Shivaji	<i>Varpe</i>
19	3019	Yadav Vaishnavi Prakash	<i>Vaishnavi</i>
20	3020	Mane Rugved	<i>RMane</i>



S. N. Kulkarni
Course Co-ordinator
Department of Biotechnology

YASHWANTRAO CHAVAV COLLEGE OF SCIENCE, KARAD

Department of Biotechnology

Short Term Course

"Certificate Course in Industrial Biotechnology"

Year 2023-2024

Theory/ Practical Time Table

Dec. 2023 to feb.2024

Lect. Time	Mon	Tues
8.50-9.40	G32 JSP	G32 SSN
9.40-10.30	G32 VRP	G32 JSP

Pract. Time	SAT
8.50-9.40	Biotechnology Lab
9.40-10.30	JSP/SSN

N.B.

1 Bracketed Numbers denotes Lecture Hall Numbers.

2 All concerned should note and follow.

3. G: Lecture hall In Golden Jubilee Building

Spatil

Co- Coordinator

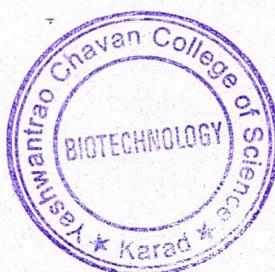
Short term course

SSNalawade

co- coordinator

Biotech. Dept.

Course Co-ordinator
Department of Biotechnology



YASHWANTRAO CHAVAN COLLEGE OF SCIENCE, KARAD

Department of Biotechnology

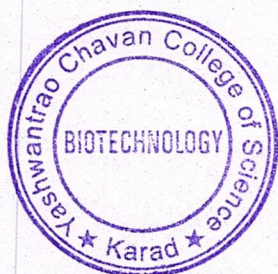
Short Term Course

"Certificate Course in Industrial Biotechnology "

Year 2023-2024

Date: 28 /11/2023

All the students those who are enrolled their names for this course are hereby informed that their theory lecture is going to start from 4th Dec. 2023. All concerned should note and follow



ssnalanade

Course Co-ordinator
Department of Biotechnology

YASHWANTRAO CHAVAV COLLEGE OF SCIENCE, KARAD

Department of Biotechnology

Short Term Course

“Certificate Course in Industrial Biotechnology”

Year 2023- 2024

Final Exam Question Paper

Marks: 30

Q.1 Choose the correct alternative given below

(20)

Select the most correct alternative from the following and tick the correct answer in the question paper itself.

1. . With our present-day lifestyles, what is a major cause of concern?

- a) Inflation b) Poverty c) Illiteracy d) Environmental Pollution

2 Why is there a need to switch to organic farming?

- a) Increasing poverty b) Increasing road accidents
c) Increasing environmental pollution d) Increasing population

3. Which of the following is not a type of manure?

- a) Farmyard manure b) Compost manure
c) Platinum manure d) Green manure

4.Which of the following is not used as a bio-fertiliser?

- a)Bacteria b)Algae c)Cyanobacteri d) Fungi

5.*Rhizobium* is a free-living bacterium that fixes atmospheric nitrogen.

- a)True b) False

6. Which of the following is not a free-living Nitrogen-fixing bacteria?

- a) *Azotobacter* b) *Clostridium* c) *Klebsiella* d) *Xanthomona*

7. Which of the following is an aerobic nitrogen-fixing bacterium?

- a) *Azotobacter* b) *Clostridium* c) *Rhodospirillum* d) *Rhodopseudomonas*

8. Which of the following bacteria cannot fix atmospheric nitrogen?

- a) *Nostoc* b) *Anabaena* c) *Oscillatoria* d) *Lactobacillus*

9. Presence of which of the following elements is required for nitrogen fixation?

- a)Phosphorus b)Carbon c)Silver d) Oxygen

10. In paddy fields, cyanobacteria serve as an important bio-fertiliser.

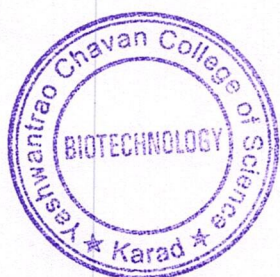
- a)True b) False

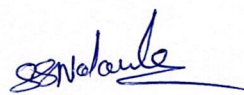


Q.2) Answer the following in short

(10)

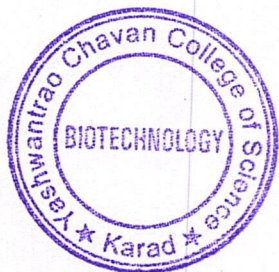
1. Write application of biofertilizer in agriculture
2. Write characteristics of biofuel





Course Co-ordinator
Department of Biotechnology

Yashwantrao Chavan College of Science, Karad
Department of Biotechnology
Short Term Course
2023-24
Industrial Biotechnology
Practical Examination

- Q.1. Isolation of Azotobacter from soil sample (20 marks)
- Q. 2. Isolation of rhizobium from root nodules (20 marks)




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Department of Biotechnology

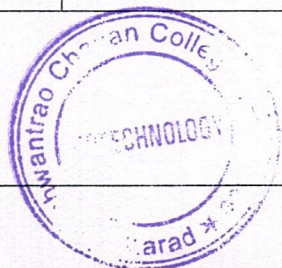
Yashwantrao Chavan College of Science, Karad

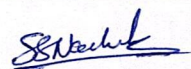
Department of Biotechnology

Short term Course – Industrial Biotechnology (2023-24)

Mark list

Roll. No.	Name of Student	Mid-course exam (Out of 30)	Final Exam (Out of 30)	Practical Exam (Out of 40)	Total (Out of 100)
Roll No.	Name of Student	21	24	40	85
3001	Adsule Prathamesh Bhaskar	22	25	40	87
3002	Bhosale Harshvardhan Ajay	21	20	40	81
3003	Chavan Sanjana Anil	21	24	40	85
3004	Chavan Sanskar Pratap	25	25	40	90
3005	Jadhav Madhura Sudhakar	19	27	40	86
3006	Jadhav Rutuja Vikram	21	28	40	89
3007	Kajave Shritej Rajaram	21	26	40	87
3008	Kale Saniya Dayanand	17	24	40	81
3009	Kolhapure Sayali Vidyasagar	21	25	40	86
3010	Kumbhar Nikhil Chandrakant	21	26	40	87
3011	Latey Riya Ranjit	25	20	40	85
3012	Patil Manasi Arvind	19	25	40	84
3013	Patil Vedashri Sanjay	21	27	40	88
3014	Salunkhe Rutuja Krushnat	21	19	40	80
3015	Shinde Pranali Shankarrao	22	20	40	82
3016	Tate Utkarsha Vasant	21	24	40	85
3017	Thorat Shivam Dattatray	21	20	40	81
3018	Varpe Rutuja Shivaji	25	27	40	92
3019	Yadav Vaishnavi Prakash	19	28	40	87




Course Co-ordinator
 Department of Biotechnology

Yashwantrao Chavan College of Science, Karad

Department of Biotechnology

Short term Course – Industrial Biotechnology (2023-24)

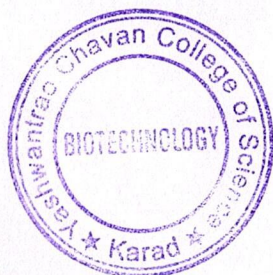
CO attainment

Average Attainment	Target Attainment level	Remark
3	Level 5	Target achieved

Course code	Course Title	% of students above 60 % of Final exam marks	Level of attainment Final exam	80% of attainment Level in Final exam (I)	% of students above 80 % of mid-course exam marks	Level of attainment	20% of attainment Level in mid-course exam (II)	Attainment of course(I+II)
Short term	Industrial Biotechnology	93.00	3	2.4	75.00	2	0.4	2.8

By using below attainment levels 1,2,3 for the Percent of students in B

For internal exam	
Level 1	Less than 60% of students scoring more than average marks
Level 2	60% - 80% of students scoring more than average marks
Level 3	more than equal to 80% of students scoring more than average marks



YASHWANTRAO CHAVAV COLLEGE OF SCIENCE, KARAD**Department of Biotechnology**

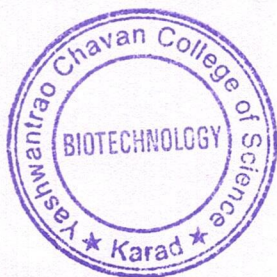
Short Term Course

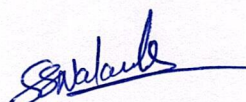
“Certificate Course in Industrial Biotechnology”

Year 2023 - 2024

Result

No. of Students Enrolled	No. of Students Appeared	Pass	Fail	Result %
20	20	20	00	100




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Department of Biotechnology

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Department of Biotechnology

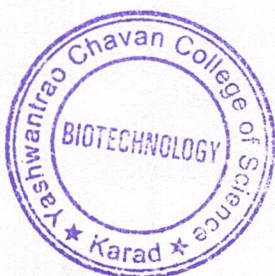
Short Term Course

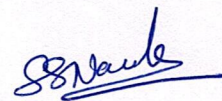
"Certificate Course in Industrial Biotechnology"

Year 2023-2024

Report

For this course Total 20 students are enrolled and 20 students are appeared for the exam. This course was conducted in Dec. 2023 to Feb. 2024. Department of Biotechnology Satisfactorily conducted this course.



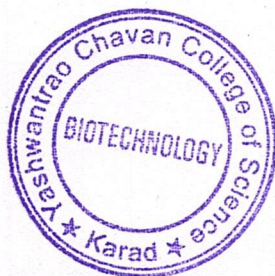

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YASHWANTRAO CHAVAV COLLEGE OF SCIENCE, KARAD**Department of Biotechnology**

Career Oriented Courses/ Certificate Courses/ Add on Courses / Value Added
Courses/ Skill Based Courses/ Short Term Courses

Year 2023- 24

Sr. No.	Name of Add on / Certificate Programs Offered	Duration of the Course	Number of the Students Enrolled
1.	Industrial Biotechnolgy	3 Months	20



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Department of Biotechnology

Short Term Course

"Certificate Course in Industrial Biotechnology"

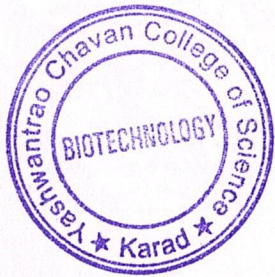
Year 2023-2024

Attendance Sheet December

Roll No.	Name of the Students	Dates and Signature of the Students									
		4-12-23	5-12-23	9-12-23	11-12-23	12-12-23	16-12-23	18-12-23	19-12-23	23-12-23	26-12-23
3001	Adsule Prathamesh Bhaskar	ABP	ABP	ABP	ABP	ABP	ABP	ABP	ABP	ABP	ABP
3002	Bhosale Harshvardhan Ajay	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale
3003	Chavan Sanjana Anil	Chavan	Chavan	Chavan	Chavan	Chavan	Chavan	Chavan	Chavan	Chavan	Chavan
3004	Chavan Sanskar Pratap	Chavan	Chavan	Chavan	Chavan	Chavan	Chavan	Chavan	Chavan	Chavan	Chavan
3005	Jadhav Madhura Sudhakar	JMS	JMS	JMS	JMS	JMS	JMS	JMS	JMS	JMS	JMS
3006	Jadhav Rutuja Vikram	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav
3007	Kajave Shritej Rajaram	Shritej	Shritej	Shritej	Shritej	Shritej	Shritej	Shritej	Shritej	Shritej	Shritej
3008	Kale Saniya Dayanand	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale
3009	Kolhapure Sayali Vidyasagar	₹	₹	₹	₹	₹	₹	₹	₹	₹	₹
3010	Kumbhar Nikhil Chandrakant	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K



3011	Latey Riya Ranjit	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>
3012	Patil Manasi Arvind	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>
3013	Patil Vedashri Sanjay	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>
3014	Salunkhe Rutuja Krushnat	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>
3015	Shinde Pranali Shankarrao	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>
3016	Tate Utkarsha Vasant	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>
3017	Thorat Shivam Dattatray	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>
3018	Varpe Rutuja Shivaji	<u>R.S.varpe</u>	<u>R.S.varpe</u>	<u>R.S.varpe</u>	<u>R.S.varpe</u>	<u>R.S.varpe</u>	<u>R.S.varpe</u>	<u>R.S.varpe</u>	<u>R.S.varpe</u>	<u>R.S.varpe</u>	<u>R.S.varpe</u>
3019	Yadav Vaishnavi Prakash	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>
3001	Adsule Prathamesh Bhaskar	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>



YASHWANTRAO CHAVAV COLLEGE OF SCIENCE, KARAD

Department of Biotechnology

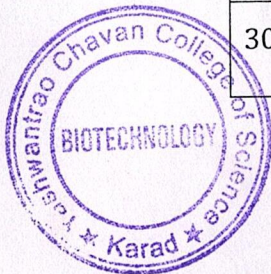
Short Term Course

"Certificate Course in Industrial Biotechnology"

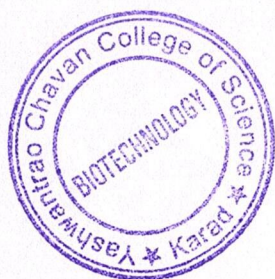
Year 2023-2024

Attendance Sheet Jan

Roll No.	Name of the Students	Dates and Signature of the Students									
		1-1-24	2-1-24	6-1-24	8-1-24	9-1-24	13-1-24	16/1/24	20/1/24	22/1/24	23/1/24
3001	Adsule Prathamesh Bhaskar	ABP	ABP	ABP	ABP	ABP	ABP	ABP	ABP	ABP	ABP
3002	Bhosale Harshvardhan Ajay	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale
3003	Chavan Sanjana Anil	Ans	Ans	Ans	Ans	Ans	Ans	Ans	Ans	Ans	Ans
3004	Chavan Sanskar Pratap	Schavan	Schavan	Schavan	Schavan	Schavan	Schavan	Schavan	Schavan	Schavan	Schavan
3005	Jadhav Madhura Sudhakar	JMS	JMS	JMS	JMS	JMS	JMS	JMS	JMS	JMS	JMS
3006	Jadhav Rutuja Vikram	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav
3007	Kajave Shritej Rajaram	Shritej	Shritej	Shritej	Shritej	Shritej	Shritej	Shritej	Shritej	Shritej	Shritej
3008	Kale Saniya Dayanand	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale
3009	Kolhapure Sayali Vidyasagar	₹	₹	₹	₹	₹	₹	₹	₹	₹	₹
3010	Kumbhar Nikhil Chandrakant	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K



3011	Latey Riya Ranjit	<u>Latey</u>	<u>Latey</u>	<u>Latey</u>	<u>Latey</u>	<u>Latey</u>	<u>Latey</u>	<u>Latey</u>	<u>Latey</u>	<u>Latey</u>	<u>Latey</u>
3012	Patil Manasi Arvind	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>
3013	Patil Vedashri Sanjay	<u>Vatil</u>	<u>Vatil</u>	<u>Vatil</u>	<u>Vatil</u>	<u>Vatil</u>	<u>Vatil</u>	<u>Vatil</u>	<u>Vatil</u>	<u>Vatil</u>	<u>Vatil</u>
3014	Salunkhe Rutuja Krushnat	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>
3015	Shinde Pranali Shankarrao	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>
3016	Tate Utkarsha Vasant	<u>UTate</u>	<u>UTate</u>	<u>UTate</u>	<u>UTate</u>	<u>UTate</u>	<u>UTate</u>	<u>UTate</u>	<u>UTate</u>	<u>UTate</u>	<u>UTate</u>
3017	Thorat Shivam Dattatray	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>
3018	Varpe Rutuja Shivaji	<u>R.S.Varpe</u>	<u>R.S.Varpe</u>	<u>R.S.Varpe</u>	<u>R.S.Varpe</u>	<u>R.S.Varpe</u>	<u>R.S.Varpe</u>	<u>R.S.Varpe</u>	<u>R.S.Varpe</u>	<u>R.S.Varpe</u>	<u>R.S.Varpe</u>
3019	Yadav Vaishnavi Prakash	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>
3001	Adsule Prathamesh Bhaskar	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>	<u>Adsule</u>



YASHWANTRAO CHAVAV COLLEGE OF SCIENCE, KARAD

Department of Biotechnology

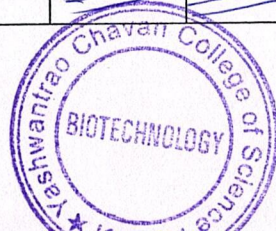
Short Term Course

"Certificate Course in Industrial Biotechnology"

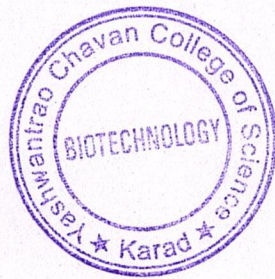
Year 2023-2024

Attendance Sheet Jan - Feb

Roll No.	Name of the Students	Dates and Signature of the Students									
		27/1/24	29/1/24	30/1/24	31/1/24	5/2/24	6/2/24	10/2/24	12/2/24	13/2/24	17/2/24
3001	Adsule Prathamesh Bhaskar	ABP	ABP	ABP	ABP	ABP	ABP	ABP	ABP	ABP	ABP
3002	Bhosale Harshvardhan Ajay	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale	HBhosale
3003	Chavan Sanjana Anil	Chavan	Chavan	Chavan	Chavan	Chavan	Chavan	Chavan	Chavan	Chavan	Chavan
3004	Chavan Sanskar Pratap										
3005	Jadhav Madhura Sudhakar	JMS	JMS	JMS	JMS	JMS	JMS	JMS	JMS	JMS	JMS
3006	Jadhav Rutuja Vikram	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav	R.Jadhav
3007	Kajave Shritej Rajaram	Shritej	Shritej	Shritej	Shritej	Shritej	Shritej	Shritej	Shritej	Shritej	Shritej
3008	Kale Saniya Dayanand	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale	S.D.Kale
3009	Kolhapure Sayali Vidyasagar	₹	₹	₹	₹	₹	₹	₹	₹	₹	₹
3010	Kumbhar Nikhil Chandrakant	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K	N.C.K



3011	Latey Riya Ranjit	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>	<u>Katey</u>
3012	Patil Manasi Arvind	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>	<u>Mpatil</u>
3013	Patil Vedashri Sanjay	<u>Pati</u>	<u>Pati</u>	<u>Pati</u>	<u>Pati</u>	<u>Pati</u>	<u>Pati</u>	<u>Pati</u>	<u>Pati</u>	<u>Pati</u>	<u>Pati</u>
3014	Salunkhe Rutuja Krushnat	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>	<u>R.Salunkhe</u>
3015	Shinde Pranali Shankarrao	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>	<u>PSS</u>
3016	Tate Utkarsha Vasant	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>	<u>U.V.Tate</u>
3017	Thorat Shivam Dattatray	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>	<u>S.Thorat</u>
3018	Varpe Rutuja Shivaji	<u>RSVarpe</u>	<u>RSVarpe</u>	<u>RSVarpe</u>	<u>RSVarpe</u>	<u>RSVarpe</u>	<u>RSVarpe</u>	<u>RSVarpe</u>	<u>RSVarpe</u>	<u>RSVarpe</u>	<u>RSVarpe</u>
3019	Yadav Vaishnavi Prakash	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>	<u>Vaishnavi</u>
3020	Mane Rugved	<u>RMane</u>	<u>RMane</u>	<u>RMane</u>	<u>RMane</u>	<u>RMane</u>	<u>RMane</u>	<u>RMane</u>	<u>RMane</u>	<u>RMane</u>	<u>RMane</u>



YASHWANTRAO CHAVAV COLLEGE OF SCIENCE, KARAD

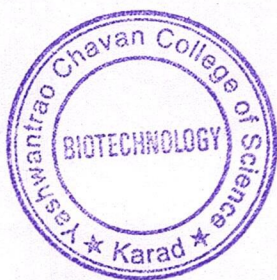
Department of Biotechnology

Short Term Course

"Certificate Course in Industrial Biotechnology"

Year 2023-2024

Sr.No.	Criteria	Excellent	Good	Average	Poor
1.	Curriculum Content	18	02	—	—
2.	Gratification about Lecture	19	01	—	—
3.	Gratification about Practical	20	00	—	—
4.	Hands on Training	20	—	—	—
5.	Knowledge get from the course	18	02	—	—
6.	The course if beneficial for Students and Parents	19	01	—	—



Estd.:

1958

|| Be one with the downtrodden and the underprivileged ||

Shri Shivaji Education Society, Vidyanagar, Karad
Board for Higher Education's, Vidyanagar Karad's

Yashwantrao Chavan College of Science, Karad



- Vidyanagar, Karad - 415 124.
- Reaccredited B++ Level by NAAC, Bangalore.
- An ISO 9001 : 2015 Certified College



Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Yadav Vaishnavi Prakash
of Class B.Sc. III has Completed Short Term Course (3 Months) in Industrial
Biotechnology conducted by the department of
_____ during the academic year 2023 - 2024

Spabil.
Course Co-ordinator

[Signature]
Head of the Department

[Signature]
IQAC Co-ordinator

[Signature]
Principal

Estd.:

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Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Jadhav Madhura Sudhakae,
of Class B.Sc. III has Completed Short Term Course (3 Months) in Industrial
Biotechnology conducted by the department of
during the academic year 2023 - 2024

Spatil
Course Co-ordinator

[Signature]
Head of the Department

[Signature]
IQAC Co-ordinator

[Signature]
Principal

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Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Thorat shivam Dattatray
of Class B.Sc.III has Completed Short Term Course (3 Months) in Industrial
Biotechnology conducted by the department of
during the academic year 2023 - 2024


Course Co-ordinator


Head of the Department


IQAC Co-ordinator


Principal

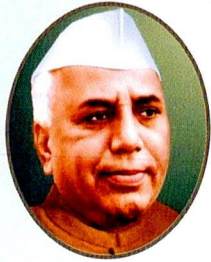
Estd.:

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Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Kajave Shritej Rajaram
of Class B.Sc. III has Completed Short Term Course (3 Months) in Industrial
Biotechnology conducted by the department of
during the academic year 2023 - 2024.



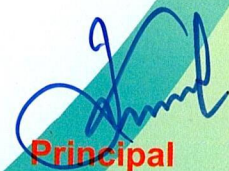
Course Co-ordinator



Head of the Department



IQAC Co-ordinator



Principal

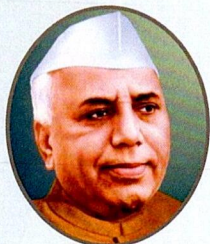
Estd.:

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Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Chavan Sanjana Anil
of Class B.Sc III has Completed Short Term Course (3 Months) in Industrial
Biotechnology conducted by the department of
Biotechnology during the academic year 2023 - 2024

S. Pati

Course Co-ordinator

[Signature]

Head of the Department

[Signature]

IQAC Co-ordinator

[Signature]

Principal

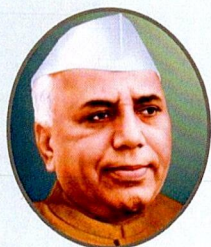
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Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Jadhav Rutuja Vikram
of Class B.Sc III has Completed Short Term Course (3 Months) in Industrial
Biotechnology conducted by the department of
Biotechnology during the academic year 2023 - 2024

Spatil

Course Co-ordinator

[Signature]

Head of the Department

[Signature]

IQAC Co-ordinator

[Signature]

Principal

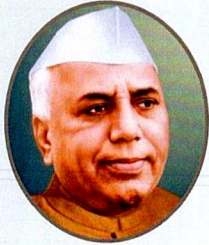
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Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Latey Riya Ranjit
of Class B.Sc. III has Completed Short Term Course (3 Months) in Industrial
Biotechnology conducted by the department of
Biotechnology during the academic year 2023 - 2024

SPati
Course Co-ordinator

[Signature]
Head of the Department

[Signature]
IQAC Co-ordinator

[Signature]
Principal

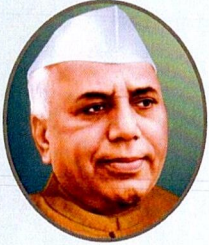
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Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Tate Utkasha Vasant
of Class B.Sc. III has Completed Short Term Course (3 Months) in Industrial
Biotechnology conducted by the department of
Biotechnology during the academic year 2023 - 2024

Spatil
Course Co-ordinator

[Signature]
Head of the Department

[Signature]
IQAC Co-ordinator

[Signature]
Principal

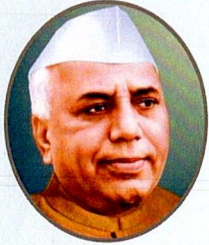
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Short Term Course Certificate of Completion

This is to certify that Mr./Miss. Vaspe Rutuja Shivaji
of Class B.Sc III has Completed Short Term Course (3 Months) in Industrial
Biotechnology conducted by the department of
Biotechnology during the academic year 2023 - 2024

[Signature]

Course Co-ordinator

[Signature]

Head of the Department

[Signature]

IQAC Co-ordinator

[Signature]

Principal