

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





#### YASHWANTRAO CHAVAN COLLEGE OF SCIENCE, KARAD

Course Code -CCE-03

#### **DEPARTMENT OF BIOTECHNOLOGY**

#### **SHORT TERM COURSE**

Food Science In Biotechnology

2022-23

#### **Index**

**Total Students: 20** Duration: 03 Months

Sr. No.	Documents	Page No.
1	Notice	01
2	Student Enrolment	02
3	Timetable	03
4	<b>QP Theory and Practical</b>	04-06
5	Mark List	07
6	CO Attainment	08
7	Attendance	09-12
8	Certificate	13

Course Co-ordinator
Department of Biotechnology



Yashwantrao Chavan College of Science, Karad

Notice

Date: 07/11/2022

All the Students of the B. Sc. I are hereby informed that the Department of Biotechnology is going to run a short-term course entitled as "Food science in Biotechnology" Interested Candidates enroll their names to Mrs. S.S Nalawade (course Co-ordinator) on or before 25th November 2022.



**Short Term Course** 

### "Food Science in Biotechnology"

Year 2022 - 2023 Name of the Enrolled Students

Date: 01/12/2022

Sr. No. Roll No.		Name of the Students	Signature			
1	3001	Bhosale Vedant Ganesh	Bhosalev.			
2	3002	Desai Vaishnavi Jagannath	DAL			
3	3003	Katwate Gayatri Pramod	Ratuate			
4	3004	Salunkhe Atharv Arvind	salunkte			
5	3005	Sanya K Prasannan	SKP			
6	3006	Awale Tejaswini Nitin	5. awale			
7	3007	Jadhav Isha Ravindra	Jadhavar			
8	3008	Jadhav Pavan Vijay	Sadha			
9	3009	Kumbhar Sejal Anil	Sambhan			
10	3010	Parave Rasika Sambhaji	Reparave			
11	3011	Patil Amruta Vijaykumar	APati 1			
12	3012	Pawar Sakshi Kumar	Stoma X			
13	3013	Pawar Shreya Bapurao	Famas			
14	3014	Kadam Prathamesh Ashok	KA			
15	3015	Lokhande Shruti Samadhan	Lokhande 5.			
16	3016	Mutwalli Nabil Asif	Montwell'			
17	3017	Patel Saniya Sikandar	divol.			
18	3018	Sankpal Pranali Dipak	Bankpal			
19	3019	Bhosale Vedant Ganesh	Br.G.			
20	3020	Desai Vaishnavi Jagannath	Desail Desail			



**Short Term Course** 

### "Certificate Course in Food Science in Biotechnology"

Year 2022-2023

#### **Theory Time Table**

Dec. 2022 to Jan. 2023

Lect. Time	Fri	Sat
8.50-	G32	G32
9.40	SSN	SSN
9.40-	G32	G32
10.30	JSP	VRP

#### **Practical Time Table**

Time	Wed
8.00-	
8.50	
8.50- 9.40	Biotechnology Lab. SSN/JSP/VRP
9.40- 10.30	

N.B.

- 1 Bracketed Numbers denotes Lecture Hall Numbers.
- 2 All concerned should note and follow.
- 3. G: Lecture hall In Golden Jubilee Building

Course Coordinator

Course Co-ordinator Department of Biotechnology



1. 7. 67

**Short Term Course** 

#### "Certificate Course in Food Science in Biotechnology"

Year 2022- 2023

#### **Final Exam Question Paper**

Marks: 30

Q.1 Choose the correct alternative given below

30

- 1. Which of the following is a factor that affects the storage stability of food?
- a) type of raw material used b) quality of raw material used
- c)method/effectiveness of packaging d) all of the mentioned
- 2. Which of the following sentence is true with respect to food storage/preservation?
- a)each food type has a potential storage life
- b)the mechanical abuse that food has received during storage/distribution does not affects its storage stability
- c)all of the mentioned
- d)none of the mentioned
- 3. Cereals are a major source of carbohydrates.
- a) true b)false
- 4 ..... is called the table sugar.
- a) Sucrose b) Galactose c)Maltose d) None of these
- 5. which of the following is not an intrinsic factor in food spoilage
- a) pH b)moisture c) temperature d)none



6. Which of the following food products are the best sources of animal proteins?
(a) Milk (b) Egg (c) Cheese (d) All of the above.
7. Which of the following mineral functions by building strong bones and teeth?
(a) Iodine (b) Calcium (c) Iron (d) Sodium
8. Which of the following food items is the best source of plant proteins?
(a) Milk (b) Egg (c) Legumes (d) Cheese
9. Guava, Lemon, Orange and Tomato are rich in
(a) vitamin A (b) vitamin B (c) vitamin C (d) vitamin D
10. Potatoes, cereals, beans, pulses and oats are rich in
(a) Proteins (b) Vitamins (c) Minerals (d) Carbohydrate
11. Which of the following is not a component of food?
(a) Fats (b) Fibres (c) Water (d) None of the above
12.The most significant and essential mineral required for our body is
(a) Iron (b) Sodium (c) Calcium (d) All of the above
13. Which of the following produces citric acid?
(a) Aspergillus (b) Pseudomonas (c) Saccharomyces (d) Clostridium
14. Yeast is used for the production of
(a) Tetracycline (b) Butanol (c) Ethanol (d) Citric Acid
15. The full form of PFA is
(a) Prevention of Food Act (b) Protection of Food Act
(c) Prevention of Food Adulteration Act (d) None of the above is correct



# Yashwantrao Chavan College of Science, Karad Department of Biotechnology Short Term Course 2022-23 Food Science In Biotechnology Practical Examination

Q.1. Proceed to prepare Mango Jam

(20 marks)

Q. 2. Proceed to isolate bacteria from given spices

(20 marks)



### Yashwantrao Chavan College of Science, Karad Department of Biotechnology

### Short term Course - Food science in Biotechnology (2022-23)

#### 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)	
391	Bhosale Vedant Ganesh	18	24	40	82	
392	Desai Vaishnavi Jagannath	22	24	40	86	
393	Katwate Gayatri Pramod	26	20	40	86	
394	Salunkhe Atharv Arvind	21	24	40	85	
395	Sanya K Prasannan	25	25	40	90	
396	Awale Tejaswini Nitin	19	27	40	86	
397	Jadhav Isha Ravindra	Ihav Isha Ravindra 21 28		40	89	
398	Jadhav Pavan Vijay	21	26	40	87	
399	Kumbhar Sejal Anil	19	24	40	81	
400	Parave Rasika Sambhaji	21	25	40	86	
401	Patil Amruta Vijaykumar	21	26	40	87	
402	Pawar Sakshi Kumar	25	20	40	85	
403	Pawar Shreya Bapurao	22	22	40	84	
404	Kadam Prathamesh Ashok	23	27	40	90	
405	Lokhande Shruti Samadhan	24	19	40	83	
406	Mutwalli Nabil Asif	22	20	40	82	
407	Patel Saniya Sikandar	21	24	40	85	
408	Sankpal Pranali Dipak	Sankpal Pranali Dipak 21		40	81	
409	Bhosale Vedant Ganesh	Bhosale Vedant Ganesh 22 23		40	85	
410	Desai Vaishnavi Jagannath	20	28	40	88	



### Yashwantrao Chavan College of Science, Karad Department of Biotechnology

### Short term Course-Food science in Biotechnology(2022-23)

CCE-03	Course:	Food s	cience in biotechnology				
S.S.Nalawade		Date	2022-23				
oup: B.Sc. I							
Basic (10+2) k     Basic knowled	nowledge of	f science g food sc	faculty + good analytical skills. ience.				
utcomes							
of the course the students	should be al	ole to					
			od technology				
HACCP for food safety and microbial standards							
	S.S.Nalawade  Sup: B.Sc. I  Basic (10+2) k Basic knowled  utcomes  of the course the students Understand some eme  To grasp the fundamer	S.S.Nalawade  oup: B.Sc. I  Basic (10+2) knowledge of Basic knowledge regarding  utcomes  of the course the students should be all Understand some emerging conceptor of grasp the fundamental of food process.	S.S.Nalawade Date  Dup: B.Sc. I  Basic (10+2) knowledge of science Basic knowledge regarding food sc  utcomes of the course the students should be able to Understand some emerging concepts in food To grasp the fundamental of food processing				



#### Yashwantrao Chavan College of Science, Karad

#### Department of Biotechnology

#### Short term Course – Food science in Biotechnology 2022-23

#### **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)
CCE-03	Food science in Biotechnology	94.00	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							

**Short Term Course** 

"Certificate Course in Food Science in Biotechnology"

Year 2022-2023

Attendance Sheet December

				Attendand	c alleer 1	Jecern	262				
Roll No.	Name of the Students			Dat	es and	Signat	ture of	the Stud	dents		
NO.											
		2-12-22	3-12-22	7-12-22	9-12-22	10-12-28	14-12-22	16-12-2	17-12-25	28-12-2	36-12-7
391	Bhosale Vedant Ganesh	Bhosaler.	Bhasaley		Brosaler.	Brosale	Bhosalev:	Bhospler	Bhosaler		Bhosaler
392	Desai Vaishnavi Jagannath	DYJ.	DIM	DVS.	DVT.	D. N.	DAZ.	DVI.	D.A.	DVJ.	DVO:
393	Katwate Gayatri Pramod	Kowale	Kurade	tortode	Contracte	Hoduste			Katuate		Carrente
394	Salunkhe Atharv Arvind	salunkte			Salunde		4	salunde	salumble		THE RESERVE AND ASSESSMENT OF THE PERSON OF
395	Sanya K Prasannan	8(R.P	3(K.P)	S.K.P	8. K.P	8. K-P	2.4.0	8 (K-P)	8KP	8. M.P	0(1-10)
386	Awale Tejaswini Nitin	Bawate.	Fawale	Edwale	Equale	Kawale	Faudle	Isquale	Fawale	Sawale	E vole
397		Jadharak	Jadhar	5adras	Jachare	Jadhus	Sans	Tachunda	Jachoft		Sauther &
388	Jadhav Pavan Vijay	Plaethau	_	Dudhow	Ballow	esalhoo	Gladha	Badha	Plathau	Pladhau	Oladbar
399	Kumbhar Sejal Anil		Aumber	Rhow	Rubber	Bhanke	Runba	Shings	Rhum	Rhon	Duns
400	Parave Rasika Sambhaji			Branque	Reference		RAPORAN	Parane	(R) Parra 10	Rapan	(P) Dame
<b>40</b> 1	Patil Amruta Vijaykumar	Patil_	Matil	Patil	Nati	AROHI	APatil.	Protil	PEHL	Patil	Natil
4 <b>9</b> 2	Pawar Sakshi Kumar	Rawar		Dowar	Paway	Down	Paray	Powar	Paway	Slaver	Ravox
403	Pawar Shreya Bapurao	AULOG	Janas	fowar	1000	LOUGE	JOWAR	Bowas	faire	Awar.	Jaros
404	Kadam Prathamesh Ashok	wadame	7	Kadamo	Kadamp	Kadam		Kadamp		1	kadamp
485	Lokhande Shruti Samadhan	BAN		(\$3)	(331)	(33)	(88)	2	831	Residence	RUCIONIT
486	Mutwalli Nabil Asif	Dan-	-	DAn	M	With		Mass	Man	1	A STATE OF THE PARTY OF THE PAR
407	Patel Saniya Sikandar	Sanige		Saniye	Samige	Sample	Saniye	saniye		Sanitar	Sanige
488	Sankpal Pranali Dipak			_		Bauls	Lem	Semila	Semi	Come	Shul
489	Bhosale Vedant Ganesh	B.VG		B.V.G.	B. V. G.		B. V. G		The second second	THE RESERVE TO A STATE OF THE PARTY OF THE P	B. V. Ce
410		_	Descu	Descri		Descir			0 6	Desou	Desců

**Short Term Course** 

"Certificate Course in Food Science in Biotechnology"

Year 2022-2023

Attendance Sheet January

Roll	Name of the Students			Dat	es and	Signature of the Students					
No.											
		4-1-23	6-1-23	7-1-23	18-1-28	18-1-23	20-1-23	2×1-23	25-1-23	23-1-33	28-1-23
3001	Bhosale Vedant Ganesh	Bhosalev	Bhasala	Bhosaler	Brosaler.	Bhosaler	8 hosalar	Bhosalar	50 osalar	ghasde	Bhosalis
3002	Desai Vaishnavi Jagannath	DVI	DVS	DVO	DVI	DVS.	DV	DVI.	DV	DVO .	010.
3003	Katwate Gayatri Pramod	Hatwate	Talacet	Colone	Chatroole	Colecute	Colout		Catwoode		Bolone
3004	Salunkhe Atharv Arvind	salunkte.	Salunde	salunkhe	salunte	salunthe	Salankhe	Salinthe	salute	Salukk	
3005	Sanya K Prasannan	8(K.P)	SKP	8(K.B.	S(K-P)	8-(K-P)	SKP	8(K-P)	8 K.D	8 (K-B)	8(K-P)
3006	Awale Tejaswini Nitin	Bawale	Bawak			Sowall	Squale	Equale	Eaware		
3007	Jadhav Isha Ravindra	Jadhangs	Jadhar	Jahm!R	Jarme	Jahre	Jahne	Jadroth	Jadhow 2	Sacholle	David
3008	Jadhav Pavan Vijay	Pladhau	Pladhar	Psadha	Psadhau		Pladhau	Plathau	Pladhau	Prodhav	Pladhau
3009	Kumbhar Sejal Anil	Monday	<b>Furnishor</b>	Bumbhac	deumbhar	grambbu	Seuritra	Tarribhan			
3010	Parave Rasika Sambhaji	Brance	Blance	Brarave	Brane	Caran	Relarque	Plane	Branque	Blanque	Blanane
3011	Patil Amruta Vijaykumar	Hotil	WEHL	Matil	Natu	Hati	Noth	ACHI	HEDA	TAOTIL	Nati
3012	Pawar Sakshi Kumar	Dawax	Burar	Dowar	Mauri	& Pauca	Brugs	Dawax	Dawar	Doway	-
3013	Pawar Shreya Bapurao	ADWAR	Jamas	tamos	Sourcir	Jours	Lough	Lawer	Seeman	Jaway	Jausar
3014	Kadam Prathamesh Ashok	Kadamp	kadam	Kadarof	hadount	tradamp	Kadarop	Kadarop	Kadcypt	kadam	Kadunf
3015	Lokhande Shruti Samadhan	884	SSO	(281)	(881)	(32)	(381)	(88)	(83)	(881)	580
3016	Mutwalli Nabil Asif	Dur	m-	OA.	m	W.	and in	1	an-	m	a-
3017	Patel Saniya Sikandar	Sanigar	Sanige	Somite	Server	Socriff	Some	saniyas	sonote	Sarry	Samifac
3018	Sankpal Pranali Dipak		Bankpal	Sandre	Empor	Sanker	Sankpal	Sambral	Santral	Smanpal	amb
3019	Bhosale Vedant Ganesh	B. V. 9	B. V.9	B. N.G.	8.1.9	B. v. 9	B.V.9	B.N.G.	BV'G.	B. VG.	B.nd.
3020	Desai Vaishnavi Jagannath	Desai	Pisai	Desui	Descu	Descu	Desou	Pesci	Desai	Desai	Descu



**Short Term Course** 

"Certificate Course in Food Science in Biotechnology"

Year 2022-2023

Attendance Sheet February.

Roll No.	Name of the Students		Dates and Signature of the Students								
		1-2-23	3-2-23	4-2-23	8-2-23	10-2-2	311-2-23	15-2-23	2 23	1 2 23	78
391	Bhosale Vedant Ganesh	Bhosalev.	Bhosale	Bhosaler.	Bhoseler	27-00-10	110000	13	1		24-2-0
392	Desai Vaishnavi Jagannath	DYT	DVT.	DVJ	DVJ.				0,1	0.00	- Bhosahar
393	Katwate Gayatri Pramod		1	Boduate		DVS	DVJ.	DVJ.	DVD	DV2.	DVI
394	Salunkhe Atharv Arvind	-		salvnkhe.	9	1		Gara	Cataole		Courte
395	Sanya K Prasannan	BKP	S.K.P	-	Salunkhe		-		Salinkle		Salute
396	Awale Tejaswini Nitin		-	S. K.P	Edward	SKIP		8- K-B	8-K-D.	8-K-P-	8K-P
397	Jadhav Isha Ravindra			Jadharel					Equal	Edvale	Baroak
398	Jadhav Pavan Vijay				James	Jades			Jaduah	Jackette	Jache
399	1/ 11 0 11	Kumbhon	Plastra	( Combhall	Plachen	Cladhai	Pladhau	Godha	Pladlar	Badhar	Bladhau
040	Parave Rasika Sambhaji	B Parave			Tarnon.	Som brus	eum bhor	Kumbha	Leunbra	Leumbha	Sumbrer
401	Patil Amruta Vijaykumar		Patil	The same of the sa	<u> </u>	Kskirau	18 Parave	RSparave	Parare	Patorau	Poparav
402	Pawar Sakshi Kumar	(a)		Aller 8	4010	Nati.	Hatil	APAH	Noth	Nati	NOHI
403	Pawar Shreya Bapurao		Janas	Janas	Burny	A Power	Bonos	Pavax	Daway	Dawy	Nawar
	V 1 5 1			-	Aguar	Pantes	Jamas	Source	Samo	foregr	Souge
	Lokhande Shruti Samadhan			radant)	kedant	kadamp	Kadarop	Kadarop	Kadamp	Kadarop	Kadarop
	Mutwalli Nabil Asif	(881)	880	(280)	(SSD)	880	88D.	BSD.	1830	(332)	Rey).
	Potal Carrier City	Saniya S	B child		Umi		AF	dr	ade	A .	A
	Control Duranti Di		-		March or Monte of State	Smith	Santy	Sanigo	Saniff	sanife	Sanixe
	Phone Is Value	. (6						sawker !	Sankipal.		Sankie
	And the second s					- /-		BNG Desai		B. V. 9.	BV.4.



Sablante

**Short Term Course** 

### "Certificate Course in Food Science In Biotechnology"

Year 2022-2023

Sr. No.	Criteria	Excellent	Good	Average	Poor
1.	Curriculum Content	15	05		
2.	Gratification about Lecture	16	04		
3.	Gratification about Practical	17	03		
4.	Hands on Training	18	02		
5.	Knowledge get from the course	14	06		
6.	The course if beneficial for Students and Parents	15	05		



# YASHWANTRAO CHAVAV COLLEGE OF SCIENCE, KARAD Department of Biotechnology Short Term Course "Certificate Course in Food Science In Biotechnology" Year 2022-2023

#### Report

For this course Total 20 students are enrolled and 20 students are appeared for the exam. This course was conducted in Dec. 2022 to Feb. 2023. Department of Biotechnology Satisfactorily conducted this course.



**Short Term Course** 

### "Certificate Course in Food Science In Biotechnology"

Year 2022- 2023

#### Result

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



II Be one with the downtrodden and the underprivileged II

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<sup>++</sup> Level by NAAC, Bangalore.
 An ISO 9001: 2015 Certified College





### Short Term Course Certificate of Completion

This is to certify that Mr./Miss	kadwałe	Gazatri	Pramod	
of Class has				science
in Biotechnology			conducted by the	
Biotechnology during the academ	nic year 2022 - 20	023		
	1			

Course Co-ordnator

**Head of the Department** 

**IQAC** Co-ordinator

rincipal

।। 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<sup>++</sup> Level by NAAC, Bangalore. An ISO 9001: 2015 Certified College





### **Short Term Course** Certificate of Completion

This is to certify that N	Mr./Miss. Bhosale	Vedant	Ganesh	
of Class	——— has Completed Shor	t Term Course	(3 Months) in	food
Blotechnology durin				ted by the department of
Course Co-ordnator	Head of the Department		ho-ordinator	Principal

॥ 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<sup>++</sup> Level by NAAC, Bangalore.
 An ISO 9001: 2015 Certified College





### **Short Term Course** Certificate of Completion

This is to certify that	Mr./Miss. Awale	Tejaswini	Nitio	
of Class 8.50 T	has Completed Sho	ort Term Course (3	Months) in	Food
Biodechnology duri	n Biotechnology ng the academic year 20ペー	/		ed by the department of
Course Co-ordnator	Head of the Department	pre		amb

**Head of the Department** 

Estd.:

Course Co-ordnator

II Be one with the downtrodden and the underprivileged II

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<sup>++</sup> Level by NAAC, Bangalore.
 An ISO 9001: 2015 Certified College

**Head of the Department** 



1958



### **Short Term Course** Certificate of Completion

This is t	to certify	that Mr./N	∕liss	Jadhav	Isha	Ravin	dog.	
of Class —				Completed Sh				_ A
scie	nce	in	Biote	chnology.				ted by the department o
Biotech	201091	during the	e acaden	nic year 20ぺ๙ -	2093			
				1.1	167 12			9/

Course Co-ordnator

Principal

II Be one with the downtrodden and the underprivileged II

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

### Yashwantrao Chavan College of Science, Karad

Vidyanagar, Karad - 415 124.

**Head of the Department** 

Reaccredited B<sup>++</sup> Level by NAAC, Bangalore.
 An ISO 9001: 2015 Certified College





### Short Term Course Certificate of Completion

This is to	certify th	at <b>M</b> r./Miss	tun	nbhar	sejal	Anil		
of Class	8,50	T.	has Comple	ted Short Ter	m Course (3	Months) in	food	
science	in	Biotechn				conduct	ed by the departm	ent of
Brotechr	ology d	uring the aca	ademic year	2022 - 2023				
			12				4/0	
Sepolo	he_		Max.		he		am	

**IQAC Co-ordinator**