



CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

**FEEDBACK ANALYSIS
REPORT
OF STAKEHOLDERS
(2022-23)**


CURRICULUM FEEDBACK ANALYSIS- BSc EXIT SURVEY - 2022-23

Sr No.	Parameter	Excellent (A)	Very Good (B)	Good (C)	Average (D)	Below Average (E)	Feedback Average	% Response
1	Curriculum developed and implemented has relevance to local, national, regional and global development needs.	32.0	25.0	8.0	0.0	0.0	4.37	87.4
2	Curriculum was broad enough to prepare you for career of choice.	37.0	16.0	11.0	1.0	0.0	4.37	87.4
3	Curriculum integrates crosscutting issues relevant to professional ethics, gender, human values, environment and sustainability.	30.0	21.0	13.0	1.0	0.0	4.23	84.6
4	The learning was supplemented by co-curricular activities such as course work outside the curriculum, project work, internships, workshops, conference, symposia etc.	22.0	22.0	15.0	1.0	5.0	3.85	76.9
5	Audiovisual learning resources provided by teachers facilitated you to improve learning.	31.0	23.0	9.0	1.0	1.0	4.26	85.2
6	Reading material and other learning resources provided by teachers facilitated you to improve learning.	27.0	26.0	8.0	3.0	1.0	4.15	83.1
7	Hands-on practice in laboratories and project work facilitated in overall development, inculcating skills and time management.	33.0	22.0	8.0	0.0	2.0	4.29	85.8
8	Academic activities facilitate you to improve experiential learning, participative learning and problem-solving methodology.	30.0	21.0	11.0	3.0	0.0	4.20	84.0
9	Evaluation pattern (Unit Test, Assignment, and Presentation) made you capable of analyzing your strength & weakness, and empowered you to use resources effectively.	29.0	26.0	7.0	2.0	1.0	4.23	84.6
10	The overall experience would help you to engage in independent and life-long learning in the broadest context of technological change.	32.0	23.0	10.0	0.0	0.0	4.34	86.8
11	Institution has an eco-system to promote research and other initiatives for creation and transfer of knowledge.	34.0	24.0	7.0	0.0	0.0	4.42	88.3
12	Institution has adequate facility to carry out research.	34.0	25.0	6.0	0.0	0.0	4.43	88.6
13	Workshops/seminars on research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development are organized regularly.	26.0	27.0	8.0	2.0	2.0	4.12	82.5
14	Activities with social relevance (NCC/ NSS/ CHR/ CHARUSAT Rural Education etc.) are conducted regularly.	37.0	20.0	7.0	0.0	1.0	4.42	88.3
15	The institute has adequate facilities for Teaching & learning viz. audiovisual amenities, classrooms, laboratories.	38.0	20.0	6.0	0.0	1.0	4.45	88.9

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16	The institute has adequate facilities for Cultural activities, yoga, games (Indoor and outdoor), sports and gymnasium	27.0	19.0	15.0	3.0	1.0	4.05	80.9
17	The institute has adequate LAN, WiFi and Internet Facility	13.0	17.0	16.0	6.0	13.0	3.17	63.4
18	The institute has adequate and hygienic canteen and food facilities.	23.0	24.0	13.0	3.0	2.0	3.97	79.4
19	Campus Ambience (Greenery, Environment friendly eco system, usage of solar lights, saving of electivity, production of electricity, working space) is pleasant.	41.0	15.0	8.0	1.0	0.0	4.48	89.5
20	Adequate learning resources are available in library.	29.0	22.0	12.0	1.0	1.0	4.18	83.7
21	Active student council exists and students are involved in activities for institutional development and student welfare.	31.0	25.0	7.0	2.0	0.0	4.31	86.2
22	Institution timely resolves the grievances including sexual harassment and ragging cases	36.0	19.0	9.0	0.0	1.0	4.37	87.4
23	Counseling helped in assessing learning level of students, leading to customized attention to needy students.	35.0	19.0	10.0	0.0	1.0	4.34	86.8
24	Institution encourages and provides support to participate in national and international events.	34.0	20.0	9.0	1.0	1.0	4.31	86.2
25	Capacity development and skills enhancement activities are organized regularly.	33.0	19.0	11.0	2.0	0.0	4.28	85.5
26	Adequate support is provided by Career Development and Placement Cell (CDPC).	22.0	25.0	12.0	0.0	6.0	3.88	77.5
27	The effective and transparent leadership is reflected in various institutional policies/ practices.	27.0	25.0	10.0	2.0	1.0	4.15	83.1
28	Management of Institution follows "Equal Opportunity" for all	27.0	22.0	10.0	5.0	1.0	4.06	81.2
29	Institute felicitates achievement of students through various modes.	33.0	20.0	12.0	0.0	0.0	4.32	86.5

Scale: Excellent-5; Very Good-4; Good-3; Average-2; Below Average-1

Total number of feedbacks obtained: 65

Average = $(A*5+B*4+C*3+D*2+E*1)/\text{Total no. of responses}$

% Response = $(\text{Average}*100)/5$

Other Feedback

- (1) WiFi connectivity should be better for accessing study material online
- (2) Better facilities at computer lab are requested
- (3) Better library facility with good librarian is requested
- (4) Internships and related training programs should be facilitated more




CURRICULUM FEEDBACK ANALYSIS- BSc Semester V SURVEY - 2022-23

Sr No.	Parameter	Excellent (A)	Very Good (B)	Good (C)	Average (D)	Below Average (E)	Feedback Average	% Response
1	Curriculum developed and implemented has relevance to local, national, regional and global development needs.	18.0	33.0	35.0	4.0	0.0	3.72	74.4
2	Curriculum was broad enough to prepare you for career of choice.	23.0	31.0	28.0	8.0	0.0	3.77	75.3
3	Curriculum integrates crosscutting issues relevant to professional ethics, gender, human values, environment and sustainability.	24.0	34.0	30.0	2.0	0.0	3.89	77.8
4	The learning was supplemented by co-curricular activities such as course work outside the curriculum, project work, internships, workshops, conference, symposia etc.	20.0	34.0	26.0	8.0	2.0	3.69	73.8
5	Audiovisual learning resources provided by teachers facilitated you to improve learning.	24.0	31.0	32.0	2.0	1.0	3.83	76.7
6	Reading material and other learning resources provided by teachers facilitated you to improve learning.	23.0	27.0	31.0	9.0	0.0	3.71	74.2
7	Hands-on practice in laboratories and project work facilitated in overall development, inculcating skills and time management.	27.0	34.0	22.0	5.0	2.0	3.88	77.6
8	Academic activities facilitate you to improve experiential learning, participative learning and problem-solving methodology.	17.0	35.0	33.0	3.0	2.0	3.69	73.8
9	Evaluation pattern (Unit Test, Assignment, and Presentation) made you capable of analyzing your strength & weakness, and empowered you to use resources effectively.	21.0	39.0	22.0	7.0	1.0	3.80	76.0
10	The overall experience would help you to engage in independent and life-long learning in the broadest context of technological change.	19.0	35.0	29.0	6.0	1.0	3.72	74.4
11	Institution has an eco-system to promote research and other initiatives for creation and transfer of knowledge.	31.0	25.0	27.0	7.0	0.0	3.89	77.8
12	Institution has adequate facility to carry out research.	27.0	31.0	27.0	4.0	1.0	3.88	77.6
13	Workshops/seminars on research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development are organized regularly.	25.0	30.0	32.0	3.0	0.0	3.86	77.1
14	Activities with social relevance (NCC/ NSS/ CHRF/ CHARUSAT Rural Education etc.) are conducted regularly.	30.0	30.0	25.0	5.0	0.0	3.94	78.9
15	The institute has adequate facilities for Teaching & learning viz. audiovisual amenities, classrooms, laboratories.	29.0	31.0	29.0	1.0	0.0	3.98	79.6

16	The institute has adequate facilities for Cultural activities, yoga, games (Indoor and outdoor), sports and gymnasium	12.0	27.0	33.0	14.0	4.0	3.32	66.4
17	The institute has adequate LAN, WiFi and Internet Facility	7.0	18.0	35.0	21.0	9.0	2.92	58.4
18	The institute has adequate and hygienic canteen and food facilities.	17.0	29.0	32.0	11.0	1.0	3.56	71.1
19	Campus Ambience (Greenery, Environment friendly eco system, usage of solar lights, saving of electivity, production of electricity, working space) is pleasant.	51.0	20.0	18.0	1.0	0.0	4.34	86.9
20	Adequate learning resources are available in library.	23.0	33.0	28.0	6.0	0.0	3.81	76.2
21	Active student council exists and students are involved in activities for institutional development and student welfare.	21.0	33.0	29.0	6.0	1.0	3.74	74.9
22	Institution timely resolves the grievances including sexual harassment and ragging cases	22.0	41.0	25.0	2.0	0.0	3.92	78.4
23	Counseling helped in assessing learning level of students, leading to customized attention to needy students.	30.0	27.0	27.0	4.0	2.0	3.88	77.6
24	Institution encourages and provides support to participate in national and international events.	19.0	34.0	28.0	7.0	2.0	3.68	73.6
25	Capacity development and skills enhancement activities are organized regularly.	17.0	26.0	40.0	7.0	0.0	3.59	71.8
26	Adequate support is provided by Career Development and Placement Cell (CDPC).	18.0	28.0	32.0	12.0	0.0	3.58	71.6
27	The effective and transparent leadership is reflected in various institutional policies/ practices.	15.0	27.0	42.0	6.0	0.0	3.57	71.3
28	Management of Institution follows "Equal Opportunity" for all	15.0	28.0	31.0	13.0	3.0	3.43	68.7
29	Institute felicitates achievement of students through various modes.	19.0	32.0	34.0	5.0	0.0	3.72	74.4

Scale: Excellent-5; Very Good-4; Good-3; Average-2; Below Average-1

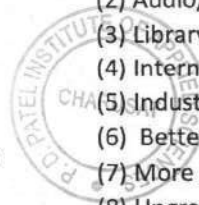
Total number of feedbacks obtained: 90

Average = $(A*5+B*4+C*3+D*2+E*1)/\text{Total no. of responses}$

% Response = $(\text{Average}*100)/5$

Other Feedback

- (1) WiFi connectivity should be better for accessing study material online
- (2) Audio/Video mode of presentation should be improved such as projectors.
- (3) Library facility should be open after college hours and with good, polite librarian is requested.
- (4) Internships and related training programs should be facilitated more
- (5) Industrial visit should be arranged for the students
- (6) Better facilities at computer lab are requested
- (7) More videos should be included in teaching practices for better understanding
- (8) Upgradation of computers is requested for the computer lab.
- (9) Some management course should be added to the curriculum.
- (10) Students should be encouraged to form a club about the competitions held in other technical departments.





CURRICULUM FEEDBACK ANALYSIS- BSc Semester III SURVEY - 2022-23

Sr No.	Parameter	Excellent (A)	Very Good (B)	Good (C)	Average (D)	Below Average (E)	Feedback Average	% Response
1	Curriculum developed and implemented has relevance to local, national, regional and global development needs.	22.0	47.0	39.0	2.0	1.0	3.78	75.7
2	Curriculum was broad enough to prepare you for career of choice.	26.0	45.0	30.0	9.0	1.0	3.77	75.5
3	Curriculum integrates crosscutting issues relevant to professional ethics, gender, human values, environment and sustainability.	21.0	46.0	32.0	10.0	2.0	3.67	73.3
4	The learning was supplemented by co-curricular activities such as course work outside the curriculum, project work, internships, workshops, conference, symposia etc.	28.0	38.0	31.0	12.0	2.0	3.70	74.1
5	Audiovisual learning resources provided by teachers facilitated you to improve learning.	35.0	37.0	31.0	8.0	0.0	3.89	77.8
6	Reading material and other learning resources provided by teachers facilitated you to improve learning.	28.0	43.0	32.0	8.0	0.0	3.82	76.4
7	Hands-on practice in laboratories and project work facilitated in overall development, inculcating skills and time management.	50.0	31.0	24.0	6.0	0.0	4.13	82.5
8	Academic activities facilitate you to improve experiential learning, participative learning and problem-solving methodology.	28.0	34.0	35.0	13.0	1.0	3.68	73.5
9	Evaluation pattern (Unit Test, Assignment, and Presentation) made you capable of analyzing your strength & weakness, and empowered you to use resources effectively.	36.0	44.0	23.0	6.0	2.0	3.95	79.1
10	The overall experience would help you to engage in independent and life-long learning in the broadest context of technological change.	31.0	45.0	31.0	3.0	1.0	3.92	78.4
11	Institution has an eco-system to promote research and other initiatives for creation and transfer of knowledge.	36.0	42.0	27.0	6.0	0.0	3.97	79.5
12	Institution has adequate facility to carry out research.	33.0	44.0	27.0	7.0	0.0	3.93	78.6
13	Workshops/seminars on research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development are organized regularly.	31.0	39.0	31.0	8.0	2.0	3.80	76.0
14	Activities with social relevance (NCC/ NSS/ CHRF/ CHARUSAT Rural Education etc.) are conducted regularly.	41.0	39.0	26.0	5.0	0.0	4.05	80.9

15	The institute has adequate facilities for Teaching & learning viz. audiovisual amenities, classrooms, laboratories.	39.0	42.0	26.0	4.0	0.0	4.05	80.9
16	The institute has adequate facilities for Cultural activities, yoga, games (Indoor and outdoor), sports and gymnasium	20.0	32.0	33.0	21.0	5.0	3.37	67.4
17	The institute has adequate LAN, WiFi and Internet Facility	14.0	19.0	33.0	34.0	11.0	2.92	58.4
18	The institute has adequate and hygienic canteen and food facilities.	34.0	35.0	27.0	13.0	2.0	3.77	75.5
19	Campus Ambience (Greenery, Environment friendly eco system, usage of solar lights, saving of electivity, production of electricity, working space) is pleasant.	58.0	33.0	17.0	3.0	0.0	4.32	86.3
20	Adequate learning resources are available in library.	36.0	36.0	31.0	7.0	1.0	3.89	77.8
21	Active student council exists and students are involved in activities for institutional development and student welfare.	24.0	41.0	27.0	18.0	1.0	3.62	72.4
22	Institution timely resolves the grievances including sexual harassment and ragging cases	34.0	44.0	31.0	2.0	0.0	3.99	79.8
23	Counseling helped in assessing learning level of students, leading to customized attention to needy students.	25.0	40.0	40.0	6.0	0.0	3.76	75.1
24	Institution encourages and provides support to participate in national and international events.	31.0	41.0	31.0	7.0	1.0	3.85	76.9
25	Capacity development and skills enhancement activities are organized regularly.	24.0	37.0	33.0	15.0	2.0	3.59	71.9
26	Adequate support is provided by Career Development and Placement Cell (CDPC).	20.0	46.0	35.0	6.0	4.0	3.65	73.0
27	The effective and transparent leadership is reflected in various institutional policies/ practices.	21.0	40.0	37.0	9.0	4.0	3.59	71.7
28	Management of Institution follows "Equal Opportunity" for all	23.0	51.0	26.0	8.0	3.0	3.75	75.0
29	Institute felicitates achievement of students through various modes.	28.0	42.0	34.0	6.0	1.0	3.81	76.2

Scale: Excellent-5; Very Good-4; Good-3; Average-2; Below Average-1

Total number of feedbacks obtained: 111

Average = $(A*5+B*4+C*3+D*2+E*1)/\text{Total no. of responses}$

% Response = $(\text{Average}*100)/5$

Other Feedback

- (1) WiFi connectivity should be better for accessing study material online
- (2) Audio/Video mode of presentation should be improved such as projectors and speakers in all the rooms.
- (3) Better library facility open after college hours with good librarian is requested
- (4) Internships and related training programs should be facilitated more

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- (5) Industrial visit should be arranged for the students
- (6) Upgradation to continuous electricity supply, better facilities at laboratories and computer lab are requested
- (7) The syllabus for the subject BC301 Metabolism should be shortened
- (8) Second internal exam should have 30 questions of one mark each instead of 15 questions of two mark
- (9) Course material should be provided before the start of the session.
- (10) Attendance stress should be reduced, it creates more stress, internal exams should be spaced out properly and preparation time should be given.
- (11) Extra-curricular activities, cultural events, sports and outdoor activities should also be promoted and University Representative elections should be held.
- (12) The course should be built up from the basics and specific subjects should be placed only after covering up basics, for example Metabolism in semester 3 is quite difficult to comprehend at times




CURRICULUM FEEDBACK ANALYSIS- MSc EXIT SURVEY - (July 2022 passout batch)

Sr No.	Parameter	Excellent (A)	Very Good (B)	Good (C)	Average (D)	Below Average (E)	Feedback Average	% Response
1	Curriculum developed and implemented has relevance to local, national, regional and global development needs.	23	13	14	1	0	4.14	82.7
2	Curriculum was broad enough to prepare you for career of choice.	15	22	12	2	0	3.98	79.6
3	Curriculum integrates crosscutting issues relevant to professional ethics, gender, human values, environment and sustainability.	13	25	12	1	0	3.98	79.6
4	The learning was supplemented by co-curricular activities such as course work outside the curriculum, project work, internships, workshops, conference, symposia etc.	20	15	12	4	0	4.00	80.0
5	Audiovisual learning resources provided by teachers facilitated you to improve learning.	21	13	16	1	0	4.06	81.2
6	Reading material and other learning resources provided by teachers facilitated you to improve learning.	18	20	9	4	0	4.02	80.4
7	Hands-on practice in laboratories and project work facilitated in overall development, inculcating skills and time management.	23	17	8	3	0	4.18	83.5
8	Academic activities facilitate you to improve experiential learning, participative learning and problem-solving methodology.	20	18	12	1	0	4.12	82.4
9	Evaluation pattern (Unit Test, Assignment, and Presentation) made you capable of analyzing your strength & weakness, and empowered you to use resources effectively.	21	12	15	3	0	4.00	80.0
10	The overall experience would help you to engage in independent and life-long learning in the broadest context of technological change.	19	23	8	1	0	4.18	83.5
11	Institution has an eco-system to promote research and other initiatives for creation and transfer of knowledge.	25	13	11	1	1	4.18	83.5
12	Institution has adequate facility to carry out research.	21	20	10	0	0	4.22	84.3
13	Workshops/seminars on research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development are organized regularly.	21	16	11	3	0	4.08	81.6
14	Activities with social relevance (NCC/ NSS/ CHRF/ CHARUSAT Rural Education etc.) are conducted regularly.	18	12	19	2	0	3.90	78.0
15	The institute has adequate facilities for Teaching & learning viz. audiovisual amenities, classrooms, laboratories.	27	12	12	0	0	4.29	85.9



16	The institute has adequate facilities for Cultural activities, yoga, games (Indoor and outdoor), sports and gymnasium	19	16	11	5	0	3.96	79.2
17	The institute has adequate LAN, WiFi and Internet Facility	15	7	14	13	2	3.39	67.8
18	The institute has adequate and hygienic canteen and food facilities.	20	14	14	3	0	4.00	80.0
19	Campus Ambience (Greenery, Environment friendly eco system, usage of solar lights, saving of electivity, production of electricity, working space) is pleasant.	32	14	5	0	0	4.53	90.6
20	Adequate learning resources are available in library.	20	13	13	5	0	3.94	78.8
21	Active student council exists and students are involved in activities for institutional development and student welfare.	18	14	19	0	0	3.98	79.6
22	Institution timely resolves the grievances including sexual harassment and ragging cases	21	16	14	0	0	4.14	82.7
23	Counseling helped in assessing learning level of students, leading to customized attention to needy students.	20	15	15	1	0	4.06	81.2
24	Institution encourages and provides support to participate in national and international events.	17	16	17	1	0	3.96	79.2
25	Capacity development and skills enhancement activities are organized regularly.	18	14	15	4	0	3.90	78.0
26	Adequate support is provided by Career Development and Placement Cell (CDPC).	13	21	14	3	0	3.86	77.3
27	The effective and transparent leadership is reflected in various institutional policies/ practices.	19	14	17	1	0	4.00	80.0
28	Management of Institution follows "Equal Opportunity" for all	17	16	13	5	0	3.88	77.6
29	Institute felicitates achievement of students through various modes.	17	19	12	3	0	3.98	79.6

Scale: Excellent-5; Very Good-4; Good-3; Average-2; Below Average-1

Total number of feedbacks obtained: 51

Average = $(A*5+B*4+C*3+D*2+E*1)/\text{Total no. of responses}$

% Response = $(\text{Average}*100)/5$

Other Feedback

- (1) WiFi connectivity should be better for accessing study material online
- (2) Audio/Video mode of presentation should be improved such as projectors and speakers in all the rooms.
- (3) Better library facility open after college hours with good librarian is requested
- (4) Internships and related training programs should be facilitated more
- (5) More emphasis should be given on laboratory sessions




CURRICULUM FEEDBACK ANALYSIS- MSc Semester III SURVEY-AY2022-23

Sr No.	Parameter	Excellent (A)	Very Good (B)	Good (C)	Average (D)	Below Average (E)	Feedback Average	% Response
1	Curriculum developed and implemented has relevance to local, national, regional and global development needs.	23	26	17	4	0	3.97	79.4
2	Curriculum was broad enough to prepare you for career of choice.	24	23	20	3	0	3.97	79.4
3	Curriculum integrates crosscutting issues relevant to professional ethics, gender, human values, environment and sustainability.	23	26	18	3	0	3.99	79.7
4	The learning was supplemented by co-curricular activities such as course work outside the curriculum, project work, internships, workshops, conference, symposia etc.	22	27	17	3	1	3.94	78.9
5	Audiovisual learning resources provided by teachers facilitated you to improve learning.	26	25	12	7	0	4.00	80.0
6	Reading material and other learning resources provided by teachers facilitated you to improve learning.	25	26	15	4	0	4.03	80.6
7	Hands-on practice in laboratories and project work facilitated in overall development, inculcating skills and time management.	33	27	8	2	0	4.30	86.0
8	Academic activities facilitate you to improve experiential learning, participative learning and problem-solving methodology.	22	29	17	1	1	4.00	80.0
9	Evaluation pattern (Unit Test, Assignment, and Presentation) made you capable of analyzing your strength & weakness, and empowered you to use resources effectively.	29	22	16	2	1	4.09	81.7
10	The overall experience would help you to engage in independent and life-long learning in the broadest context of technological change.	25	27	17	1	0	4.09	81.7
11	Institution has an eco-system to promote research and other initiatives for creation and transfer of knowledge.	28	29	9	3	1	4.14	82.9
12	Institution has adequate facility to carry out research.	34	25	9	2	0	4.30	86.0
13	Workshops/seminars on research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development are organized regularly.	31	25	10	3	1	4.17	83.4
14	Activities with social relevance (NCC/ NSS/ CHR/ CHARUSAT Rural Education etc.) are conducted regularly.	25	26	13	5	1	3.99	79.7
15	The institute has adequate facilities for Teaching & learning viz. audiovisual amenities, classrooms, laboratories.	30	26	13	1	0	4.21	84.3
16	The institute has adequate facilities for Cultural activities, yoga, games (Indoor and outdoor), sports and gymnasium	20	22	15	11	2	3.67	73.4



17	The institute has adequate LAN, WiFi and Internet Facility	14	20	15	11	10	3.24	64.9
18	The institute has adequate and hygienic canteen and food facilities.	25	23	14	7	1	3.91	78.3
19	Campus Ambience (Greenery, Environment friendly eco system, usage of solar lights, saving of electivity, production of electricity, working space) is pleasant.	36	25	8	0	1	4.36	87.1
20	Adequate learning resources are available in library.	23	25	18	3	1	3.94	78.9
21	Active student council exists and students are involved in activities for institutional development and student welfare.	28	24	16	1	1	4.10	82.0
22	Institution timely resolves the grievances including sexual harassment and ragging cases	37	21	11	1	0	4.34	86.9
23	Counseling helped in assessing learning level of students, leading to customized attention to needy students.	30	20	17	2	1	4.09	81.7
24	Institution encourages and provides support to participate in national and international events.	29	22	18	1	0	4.13	82.6
25	Capacity development and skills enhancement activities are organized regularly.	25	22	18	4	1	3.94	78.9
26	Adequate support is provided by Career Development and Placement Cell (CDPC).	25	24	19	2	0	4.03	80.6
27	The effective and transparent leadership is reflected in various institutional policies/ practices.	22	27	17	4	0	3.96	79.1
28	Management of Institution follows "Equal Opportunity" for all	23	23	21	3	0	3.94	78.9
29	Institute felicitates achievement of students through various modes.	26	26	14	4	0	4.06	81.1

Scale: Excellent-5; Very Good-4; Good-3; Average-2; Below Average-1

Total number of feedbacks obtained: 70

Average = (A*5+B*4+C*3+D*2+E*1)/Total no. of responses

% Response = (Average*100)/5

Other Feedback

- (1) WiFi connectivity should be better for accessing study material online
- (2) Audio/Video mode of presentation should be improved such as projectors and speakers in all the rooms.
- (3) Better library facility open after college hours with good librarian is requested
- (4) Internships and related training programs should be facilitated more
- (5) More emphasis should be given on laboratory sessions
- (6) Basic biochemistry should be taught to all the students irrespective of branches
- (7) Counselling of the students should be more focused
- (8) The dissertation period should be increased from 6 months to 1 year.
- (9) Institute should organize training programs of some of the important domain related high end techniques that adds value and skills.





FACULTY OF SCIENCE
 P D PATEL INSTITUTE OF APPLIED SCIENCES
 DEPARTMENT OF BIOLOGICAL SCIENCES

ANALYSIS OF FEEDBACK ON CURRICULUM (INDUSTRY/ACADEMIC PEERS/TEACHERS)

No	Parameter	Excellent (5)	Very Good (4)	Good (C)	Satisfactory (D)	Needs Improvement (E)	Not applicable (F)	Feedback Average	% Response
1	Content of syllabus	2	5	2				4.00	80.0
2	Relevance of syllabus to industry/research requirements	2	4	3				3.89	77.8
3	Course outcomes are well defined	2	4	3				3.89	77.8
3	Sufficient reading materials and digital resources provided	2	5	2				4.00	80.0
5	Incorporation of advanced topics	2	6	1				4.11	82.2
6	Pedagogy proposed	2	4	3				3.89	77.8
7	Have a desired balance between theory and practical	3	2	2	1	1		3.56	71.1
8	Assessment methods are fair, measuring the outcomes	3	4	2				4.11	82.2
9	Project component in the course, if applicable:	2	3				4	2.44	48.9
10	Industrial training/practical exposure in the course, if applicable:	4	4	1				4.33	86.7

Scale: Excellent-5; Very Good-4; Good-3; Satisfactory-2; Needs Improvement-1; Not Applicable-0

Total number of feedbacks obtained: 9

Average = $(A*5+B*4+C*3+D*2+E*1)/\text{Total no. of responses}$

% Response = $(\text{Average}*100)/5$

Other Feedback

- 1 In laboratory, student batch size should not be more than 20 for MSc. Practical hours allotted should be based on as per the requirement of the subject.
- 2 The course BS311 Cell Biology, is too detailed at advanced for B.Sc. semester 3, the subject should be split into two for better and the advanced topics in the syllabi can be covered in semester 5 or 6.
- 3 The syllabus should be revised by the department wherein emphasis should be given on removal of repetitive topics and betterment by addition of other relevant topics.

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FACULTY OF SCIENCE
 P D PATEL INSTITUTE OF APPLIED SCIENCES
 DEPARTMENT OF BIOLOGICAL SCIENCES
ANALYSIS OF ALUMNI FEEDBACK

No	Parameter	Excellent (5)	Very Good (4)	Good (C)	Satisfactory (D)	Needs Improvement (E)	Feedback Average	% Response
1	The curriculum was:	11	4	1			4.63	92.5
2	The relevance of the degree obtained with respect to your current job/position is	5	10	1			4.25	85.0
3	When you meet students, who have taken a similar Program at other universities, you feel that your Program is	11	4	1			4.63	92.5
4	Did you participate in any of the extracurricular activities of the Department /University?	7	5	4			4.19	83.8
5	Rate the Curriculum						0.00	0.0
	Learning value (in terms of skills, concepts, knowledge, analytical abilities, or broadening perspectives)	9	7				4.56	91.3
	Applicability/relevance to real life situations	5	9	2			4.19	83.8
	Extent and depth of content	8	7	1			4.44	88.8
	Extent of coverage	8	5	3			4.31	86.3
	Relevance/learning value of project/ training Learning value (in terms of skills, concepts, knowledge, analytical abilities, or broadening perspectives)	4	9	3			4.06	81.3

Scale: Excellent-5; Very Good-4; Good-3; Satisfactory-2; Needs Improvement-1; Not Applicable-0

Total number of feedbacks obtained: 16

Average = $(A*5+B*4+C*3+D*2+E*1)/\text{Total no. of responses}$

% Response = $(\text{Average}*100)/5$

Other Feedback

Beneficial course(s) from the curriculum:

Genetics, Biostatistics, Bioinformatics, Molecular Biology, Practical skills of all the courses Drug synthesis, Biochemistry, Genetic Engineering/ Animal Biotechnology (tissue culture), Medical Microbiology, Cell biology and Immunology, Plant biotechnology, Speaking English course.

Suggestions received about the change/ improvement in the curriculum:

- 1 Courses like Biostatistics and Bioinformatics should be improved more. Additionally, detailed bioinformatics as an optional subject for interested students should be introduced
- 2 The dissertation topics allotment a bit earlier (around august) so students get enough time for the literature review and can start working from December, giving them proper time in 4-5 months (ending in May) in the laboratory to do quality work.
- 3 Courses on Academic writing and reading should be encouraged more.
- 4 To add more practicals to improve the hands-on skills and cover almost all the basic methods and let students carry out all the practicals individually as much as possible.
- 5 Increase the component of learning sophisticated instruments and assignment for exploring the depth of the subjects





FACULTY OF SCIENCE
P D PATEL INSTITUTE OF APPLIED SCIENCES
DEPARTMENT OF BIOLOGICAL SCIENCES
ANALYSIS OF FEEDBACK FROM EMPLOYERS

No	Parameter	Strongly Agree (A)	Agree (B)	Neutral (C)	Disagree (D)	Strongly Disagree (E)	Feedback Average	% Response
1	Technical knowledge and skills of the graduate(s) are up to date	1	1	1			4.00	80.0
2	Curriculum provides adequate knowledge and training to the students.		2	1			3.67	73.3
3	The graduate(s) exhibits problem solving, leadership & managerial skills	1	1	1			4.00	80.0
4	The graduate(s) maintain good interpersonal relations with their colleagues and seniors.	1	2				4.33	86.7
5	The graduate(s) volunteer themselves for new initiatives	1	2				4.33	86.7
6	The graduate(s) mould themselves as per need of organization	1	1	1			4.00	80.0
7	Curriculum facilitated the graduate(s) to attain the desired competency level		1	2			3.33	66.7
8	Curriculum enriched the moral values among the graduate(s)	1	1	1			4.00	80.0
9	Curriculum transaction sensitized them about team work		2	1			3.67	73.3
10	Communication skills of students are good	1	2				4.33	86.7

Scale: Excellent-5; Very Good-4; Good-3; Satisfactory-2; Needs Improvement-1; Not Applicable-0

Total number of feedbacks obtained: 03

Average = $(A*5+B*4+C*3+D*2+E*1)/\text{Total no. of responses}$

% Response = $(\text{Average}*100)/5$

Details of the employer:

Ms Rucha Chauhan, Sr. HR Executive, Borek IT Sourcing Pvt Ltd

Mr Keyur Parekh, AGM, Intas Pharmaceuticals Ltd.

Dr Keyur Dave, CEO, Signate Animal Health and Nutrition Pvt Ltd.



Additional suggestions and remarks

- 1 More technical knowledge should be taught [Sr. HR Executive, Borek IT Sourcing Pvt Ltd]
- 2 Need to prepare students mentally that once you enter industry/company you have to give sufficient time to gain knowledge and to have patience for at least 5 years in your first company job. Also to be more sincere and dedicated towards your allotted work rather than easy go approach which they are doing in college. [AGM, Intas Pharmaceuticals Ltd.]
- 3 Overall, I find your students at par with best of the universities in Gujarat and Maharashtra [CEO, Signate Animal Health and Nutrition Pvt Ltd]



CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

**FEEDBACK ACTION TAKEN
REPORT OF
STAKEHOLDERS
(2022-23)**

FEEDBACK FROM STAKEHOLDERS

SUMMARY AND ACTIONS TAKEN/RECOMMENDED

Department of Biological Sciences, Faculty of Science

The feedback was obtained from various stakeholders like BSc and MSc exit batch/ongoing students, teachers, academic peers, industry associates as well as alumni, regarding curriculum and pedagogy adopted at Department of Biological Sciences, PDPIAS. The summary of the same is as under.

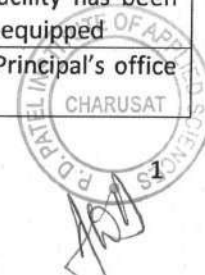
Total feedback received from various stakeholders (exiting students, ongoing students, teachers, academic peers, alumni and industry associates)	415
Feedback received from final year students (Exit Survey from BSc and MSc)	116
Feedback received from ongoing odd semester students (BSc Sem3, 5; MSc Sem3)	271
Feedback from alumni	16
Feedback from teachers/academic peers/industry associates/employers	12

This feedback has been/shall be considered at the time of the upcoming syllabus revision and devising the pedagogical reforms.

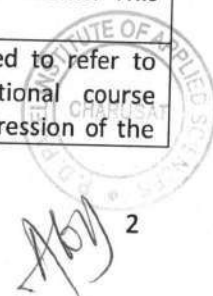
Outline and Summary:

1. Majority of the students are satisfied and appreciative of the curriculum, teaching-learning experience, facilities and faculty support. The students have expressed their happiness and content to have been a part of the department and instituted. However, they have shared some useful suggestions as well. The inputs pertaining to curriculum, pedagogy and academic management as well as actions taken/recommended have been summarized as under. Other suggestions/concerns expressed towards general facilities and needs shall be communicated to the Principal's office for needful consideration.
2. Alumni feedback on curriculum is largely encouraging, expressing high satisfaction towards the curriculum with respect to learning value, usefulness towards current profession and its relevance in addressing real life situations.
3. Most faculty members/academic peers are appreciative of the UG and PG syllabus. Curricular and pedagogical reforms are suggested

Sr No	Feedback	Actions suggested/taken
Feedback from BSc students		
1	WiFi connectivity should be better for accessing study material online	The matter has been conveyed to concerned in-charges as well as the Principal's office. A follow-up for the improvement of the same shall be taken.
2	Better facilities at computer lab are requested/ Upgradation of computers is requested for the computer lab	The matter has been conveyed to concerned in-charges as well as the Principal's office. Requirement for upgraded computer facility has been approved and the lab is already being re-equipped
3	Better library facility, even after college hours, with good librarian is requested	The matter has been conveyed to the Principal's office and needful is being considered



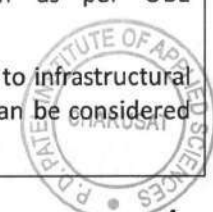
4	Internships and related training programs should be facilitated more	<p>Internships and training for BSc Semester-V has been already promoted and interested students have been facilitated with letters of recommendations</p> <p>BSc Semester-III is promoted more towards undertaking online learning, considering their limited exposure to necessary subjects. However, the suggestion shall be further considered for review at departmental level</p>
5	Audio/Video mode of presentation should be improved such as projectors	<p>Maintenance of the projector facility across all the classrooms is undertaken on regular basis.</p> <p>This suggestion however, has been conveyed to the Principal's office for needful consideration</p> <p>Conference hall fully equipped with multi-media facility is regularly utilized as and when required</p>
6	Industrial visit should be arranged for the students	<p>Industrial visits/field visits have been regularly conducted until before Covid-19 scenario. The practice has been re-initiated in the post-Covid19 situation in a staggered manner.</p> <p>This aspect has been also considered well while designing the new curriculum applicable from AY2022-23 (<i>Annexure-I-Pg. 1-3 highlighted in yellow</i>)</p>
7	The syllabus for the subject BC301 Metabolism should be shortened/ The course should be built up from the basics and specific subjects should be placed only after covering up basics, for example Metabolism in semester 3 is quite difficult to comprehend at times.	<p>This aspect has already been considered during the revision of curriculum to be implemented from AY2022-23. It has been split into two courses proposed to be offered during Semester IV and V</p> <p>The course on Enzymology shall be offered before the course on Metabolism to facilitate better understanding of the subject (<i>Annexure-I: Pg. 3 highlighted in green</i>)</p>
8	Second internal exam should have 30 questions of one mark each instead of 15 questions of two mark	The ongoing pattern of second internal exam (i.e. 15 questions of 2 marks each) is being implemented as approved from BoS. Reforms in this pattern shall require due deliberations at departmental level.
9	More videos should be included in teaching practices for better understanding	At present, videos are actively used to transact various course as required by the topics/course. Efforts shall be made to enhance further use of the same, to complement the classroom teaching
10	Some management course should be added to the curriculum	This suggestion is well-noted. It shall be considered while devising value-added courses for the new curriculum of UG programs.
11	Students should be regularly informed about the competitions held in other institutes and university	CDPC unit of the department as well as individual faculty members regularly share the information about various competitions, through notices on various platforms/classroom interactions. Our students have regularly participated and even won across such events. This practice shall be continued.
12	Course material should be provided before the start of the session	Normally, the students are recommended to refer to appropriate books for learning. Additional course material is provided along with the progression of the



 2

		<p>course, well before the exams to aid the classroom learning.</p> <p>Besides, course content and details about textbooks/ reference are provided in the beginning and have been already reflected in the syllabus available on the website.</p>
13	Attendance stress should be reduced, it creates more stress, internal exams should be spaced out properly and preparation time should be given	Attendance criteria is being followed as per the university norms, aiming to drive maximum classroom/on-site learning, which has been always realised as more effective for students. The relaxation towards the norms is considered under medical conditions/internships/ training programs/ any other genuine scenario
14	Extra-curricular activities, cultural events, sports and outdoor activities should also be promoted and University Representative elections should be held	<p>There is sufficient promotion of the extra-curricular activities. Some of these have been proposed to bear extra credits in the newly designed curriculum structure for UG programs. (<i>Annexure-I: Pg.1-3 highlighted in pink</i>)</p> <p>The university representatives for various activities are selected at present through the norms as set by respective committees, largely based on the students' interests, talent and academic records.</p>
Feedback for MSc students		
15	WiFi connectivity should be better for accessing study material online	The matter has been conveyed to concerned in-charges as well as the Principal's office. A follow-up for the improvement of the same shall be taken.
16	Audio/Video mode of presentation should be improved such as projectors and speakers in all the rooms.	<p>Maintenance of the projector facility across all the classrooms is undertaken on regular basis.</p> <p>This suggestion however, has been conveyed to the Principal's office for needful consideration</p> <p>Conference hall fully equipped with multi-media facility is regularly utilized as and when required</p>
17	Better library facility open after college hours with good librarian is requested	The matter has been conveyed to the Principal's office and needful is being considered
18	Internships and related training programs should be facilitated more	<p>Internships and training for MSc student has been extensively promoted and interested students have been facilitated with letters of recommendations. As a result, several students have benefitted through INSA fellowships, GSBTM summer training programs and many other industrial opportunities.</p> <p>CDPC unit of the department has already been active in this direction. It has been further recommended to expand their initiatives for the same.</p>
19	More emphasis should be given on laboratory sessions	<p>The curriculum studied by these students already includes extensive lab component. Considering the Covid-19 scenario, offline lab sessions had to be minimized. However, offline teaching has been entirely resumed now, with due emphasis as requested.</p> <p>Design of new curriculum as per OBE recommendations shall further strengthen the lab component. (Skill Development Courses (SEC) as in Annexure-I)</p>

20	Basic biochemistry should be taught to all the students irrespective of branches.	'Biochemistry' is already included as a common course for MSc (Biotechnology/Microbiology/Biochemistry) students, which includes both theoretical and laboratory components. The course has been retained as 4 credit course even in the new curriculum (<i>Annexure-I: Pg.4-6 highlighted in red</i>).
21	The dissertation period should be increased from 6 months to 1 year.	The suggestion is less viable considering the prevailing curriculum structure and teaching scheme, given that the curriculum intends to offer applied/industry oriented courses as well.
22	Counselling of the students should be more focused	Counselling is meant to address the student's need, in addition to the routine academic aspects touched upon by the counsellor. A student requiring focus on any particular aspect can approach the counsellor accordingly
23	Institute should organize training programs of some of the important domain related high end techniques that adds value and skills.	The suggestion is well-noted. The institute has invested efforts in this direction through augmentation of high-end lab facilities. Subsequently, the department shall plan dedicated training modules and/or value-added courses. At present the exposure to these facilities is facilitated through dissertation, extended dissertation, summer trainings and workshops (<i>Annexure-II: High-end instrument training for MSc students; Annexure-III: Sample of registration for skill development training at CSMCRI, Bhavnagar, Gujarat, total 11 students selected</i>).
24	If possible please add lecture test (L.T) and/ weekly test(W.T). At least weekly test is mandatory for all if lecture test is not possible. And include both or one of the test average marks at the end of semester calculate with 1&2 internal exam out of 30. Divide into 3 part L.t/W.t=10 mark 1&2 internal = 20 mark.	This suggestion is less viable considering the continuous evaluation system adopted by the department. Already two internal exams (offline and online mode) are conducted as approved through proper channel. The pattern of continuous evaluation requires diverse components to cater to various needs/abilities of the subject and the students. The choice of these components is left to faculty's discretion and some of the courses do involve quiz as one of the components. This quiz is similar to the weekly test suggested. Besides, too many tests may constrict the overall teaching-learning time. However, this suggestion can be further evaluated towards reforming internal evaluation scheme.
Feedback from Teachers/Industry/Academic Peers/Employers		
25	In laboratory, student batch size should not be more than 20 for MSc. Practical hours allotted should be based on as per the requirement of the subject.	This suggestion is well-noted. Allocation of practical hours as per the requirement of subject has been considered while devising the new curriculum as per OBE recommendations The batch size so far, has been subject to infrastructural availability and faculty strength. This can be considered towards pedagogical reforms in future.



26	The course BS311 Cell Biology, is too detailed at advanced for B.Sc. semester 3, the subject should be split into two for better and the advanced topics in the syllabi can be covered in semester 5 or 6.	This suggestion is well-noted. It may be considered while devising the new curriculum as per OBE recommendations
27	The syllabus should be revised by the department wherein emphasis should be given on removal of repetitive topics and betterment by addition of other relevant topics.	This suggestion is well-noted and has been actively considered while devising the new curriculum as per OBE recommendations. A new practice has been introduced at the departmental level, by forming internal syllabus-review committee consisting of a course owner and two review members. This practice has facilitated focussed efforts towards removal of repetitive topics, more diverse perspectives towards addition of relevant topics as well as appropriate allocation of lab experiments
28	More technical knowledge should be taught [Sr. HR Executive, Borek IT Sourcing Pvt Ltd]	The curriculum at present imparts technical knowledge through diverse courses, extensive lab components and dissertation/project training as well as through co-curricular activities like internships and online courses. In order to incorporate more industry-oriented technical skills in the curriculum, the re-constituted BoS for Biological Sciences has increasingly involved the experts from industry sector. Their inputs shall be considered towards further improvisation of curriculum and pedagogy
29	Need to prepare students mentally that once you enter industry/company you have to give sufficient time to gain knowledge and to have patience for at least 5 years in your first company job. Also to be more sincere and dedicated towards your allotted work rather than easy go approach which they are doing in college. [AGM, Intas Pharmaceuticals Ltd.]	This suggestion is well-noted. It has been communicated with the concerned in-charges of Career Development and Placement Cell (CDPC) unit of the department. We shall consider these remarks while training and preparing the students
30	Overall, I find your students at par with best of the universities in Gujarat and Maharashtra [CEO, Signate Animal Health and Nutrition Pvt Ltd]	This feedback is humbly noted. The department shall continue its efforts towards training our students
Feedback from Alumni		
31	Courses like Genetics, Biostatistics, Bioinformatics, Molecular Biology, Practical skills of all the courses Drug synthesis, Biochemistry, Genetic Engineering/ Animal Biotechnology (tissue culture), Medical Microbiology, Cell biology and Immunology, Plant biotechnology, Speaking English course have been found as beneficial	This feedback has been well-noted. These courses are further retained with improvisation in the new curriculum design



32	Courses like Biostatistics and Bioinformatics should be improved more. Additionally, detailed bioinformatics as an optional subject for interested students should be introduced.	This feedback was well-noted. The inputs shall be considered towards designing the new syllabus for these courses, as and when due. Moreover, advanced bioinformatics related course have been proposed in 4 th year of UG program (<i>Annexure-I: Pg.1-3 highlighted in blue</i>)
33	The dissertation topics allotment a bit earlier (around August) so students get enough time for the literature review and can start working from December, giving them proper time in 4-5 months (ending in May) in the laboratory to do quality work.	This aspect has been actively considered and discussed through departmental meetings. The beneficial and adverse aspects of the practice have been weighed. Too early allocation of dissertation, while may offer more time to take up the dissertation problem, it is likely to divert the focus from the Sem-3 academics. Alternatively, to facilitate quality laboratory work in dissertation, a newer initiative of extended dissertation has been introduced based on the feedback from the students.
34	Courses on Academic writing and reading should be encouraged more	At present, academic writing is encouraged through compulsory courses offered by Department of Humanities and Social Science (HSS). Further, the practice of writing term papers, presenting research topics/papers through seminars, poster presentations and thesis writing encourages the scientific writing. However, this suggestion shall be extended to the concerned faculty members of the HSS department.
35	To add more practicals to improve the hands-on skills and cover almost all the basic methods and let students carry out all the practicals individually as much as possible.	As per current practice, practicals are carried out both on individual and group basis. The curriculum has extensive lab component and efforts are made to further enhance it in the new curriculum design by including skill-based courses to increase the opportunities of hands-on experience Further, as per the OBE guidelines, a component of <i>Microproject (Annexure-IV: Sample syllabus for laboratory course in PG programs; similarly to be incorporated in UG Semester-III onward)</i> has been introduced in lab courses to increase the opportunities to develop hands-on skills
36	Increase the component of learning sophisticated instruments and assignment for exploring the depth of the subjects	A course on Instrumentation has been proposed in the fourth year of UG program (<i>Annexure-I:Pg1-3 highlighted in orange</i>). Demonstrations of sophisticated instruments in the institute shall be incorporated in the lab sessions and through dissertations (<i>Annexure-III</i>). Course-wise assignments are currently being considered for continuous evaluation. The component of assignment shall be further enhanced as Self-directed learning components and course-wise <i>Microproject</i> . These shall be actively considered towards continuous evaluation



**Department of Biological Sciences, PDP/IAS
BSc (Biotechnology) Proposed Curriculum Structure AY 2022-23**



Exit Options Possible	Certificate Course (Min 42 Credits)				Diploma Course (Min 88 Credits)				B. Sc Degree Course (Min 138 Credits)				B Sc (Hons/Research) (176 Credits)	
	Semester-I		Semester-II		Semester-III		Semester-IV		Semester-V		Semester-VI		Semester-VII	Semester-VIII
Type of Course	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit
Core Course (Theory)	Chemistry	3	Principles of Biochemistry	3	Fundamentals of Cell Biology	3	Fundamentals of Molecular Biology	3	Immunology	3	rDNA Technology	3	Apprenticeship	12
	Animal Biology	3	Fundamentals of Microbiology	3	Concept of Genetics	3	DSC-1-plant Biotechnology	3	DSC-1-Animal Biotechnology	3	DSC-1-Medical and Forensic Biotechnology	3	Genomics and Proteomics	2
	Plant Biology	3	Tools and Techniques in Biology	3	DSC-1- Enzyme Technology	3	DSC-2- Concepts of Bioprocess Technology	3	DSC-2-Industrial Biotechnology	3	DSC-2-Entrepreneurship and IPR	3	Research Project	8
	Ecology and Environment	2	Foundations of Biotechnology	2	DSC-2- Environmental Laboratory in Biotechnology- I	2	DSC-3- Marine Biotechnology	2	Bioinformatics	2	Statistics for Data Analysis	2	Research Methodology	2
Core Course (Lab)	Laboratory in Biological Sciences-I	6	Laboratory in Biological Sciences - II	6	Laboratory in Biotechnology- I	6	Laboratory in Biotechnology- II	6	Laboratory in Biotechnology- III	6	Laboratory in Biotechnology- IV	6	Artificial Intelligence in Life Science Applications/ Data Mining and Machine Learning for Life Sciences/ Data Analytics/System Biology Tools	2
Discipline specific Elective (DSE)														
Ability Enhancement Course (AEC)	Communicative English	2	Liberal arts	2	Creativity Problem Solving and Innovation	2	Human Values and Professional Ethics	2	Communication and Soft Skills	2	Contributory Personality Development	2		
Skill Development Course (SEC)	Computer Applications	2	Foundation Course on Biology and Chemistry (Proposed Waive Off)	2	Essential Skills in Mathematics	2	Biodiversity Assessment Skills/Biodegradable waste management	2	Plant Tissue Culture Techniques/Animal Cell Culture Techniques	2	Entrepreneurship and IPR / Bioethics and Biosafety/Clinical Diagnostic Techniques	2	Research Presentation	2
Elective: Generic/Universt					University Elective I	2	University Elective II	2						
Additional/Value-added credits*														
Total		21		21		23		23		25		25	20	18
*Additional Value-added Credits (Audit)	NSS/NCC/Sports/Cultural Activities/ Yoga & Wellness	1	Semester I-IV											
	Seminar	2	Semester V/VI											
	MOOCs	2	Across Sem-I/II											
	Summer Internship	2	After Semester IV											
	Industrial Tour	2	After Semester V/VI											





Department of Biological Sciences, PDPPIAS
B.Sc (Microbiology) Proposed Curriculum Structure AY 2022-23



Exit Options Possible	Certificate Course (Min 42 Credits)				Diploma Course (Min 88 Credits)				B. Sc Degree Course (Min 138 Credits)				B.Sc (Hons/Research) (176 Credits)														
	Semester-I	Semester-II	Semester-III	Semester-IV	Semester-V	Semester-VI	Semester-VII	Semester-VIII	Semester-IX	Semester-X	Semester-XI	Semester-XII	Semester-XIII	Semester-XIV													
Core Course (Theory)	Chemistry	3	Principles of Biochemistry	3	Fundamentals of Cell Biology	3	Fundamentals of Molecular Biology	3	Immunology	3	Bioinformatics	3	Genomics and Proteomics	12	Bioinstrumentation and Bioanalytical Skills	4											
	Animal Biology	3	Fundamentals of Microbiology	3	Concept of Genetics	3	DSC-1-Plant Pathology	2	DSC-1-Microbiology in Food and Dairy	3	DSC-1-Medical Microbiology	3	Research Project	2	Research Project	8											
	Plant Biology	3	Tools and Techniques in Biology	3	DSC-1-Microbiology	2	DSC-2-Basics of Microbial Physiology	3	DSC-2-Fundamentals of Environmental Microbiology	3	DSC-2-Microbial Technology	3	Research Methodology			2											
	Ecology and Environment	2	Foundations of Biotechnology	2	DSC-2- Microbial Biochemistry	3	DSC-3-Mycology & Phyecology	3	rDNA Technology	2	Statistics for Data Analysis	2															
	Laboratory in Biological Sciences-I	6	Laboratory in Biological Sciences - II	6	Laboratory in Microbiology- I	6	Laboratory in Microbiology-II	6	Laboratory in Microbiology- III	6	Laboratory in Microbiology- IV	6															
	Discipline specific Elective (DSE)																										
	Ability Enhancement Compulsory Course (AECC)	Communicative English	2	Liberal arts	2	Creativity Problem Solving and Innovation	2	Human Values and Professional Ethics	2	Communication and Soft Skills	2	Contributory Personality Development	2														
	Skill Development Course (SEC)	Computer Applications	2			Essential Skills in Mathematics	2	Biodiversity Assessment Skills/Biodegradable waste management	2	Plant Tissue Culture Techniques/Animal Cell Culture Techniques	2	Entrepreneurship and IPK / Bioethics and Biosafety/Clinical Diagnostic Techniques	2	Research Presentation	2												
	Elective: Generic/Universt					University Elective I	2	University Elective II	2																		
	Additional/Value-added credits*																										
Total																		21	21	23	23	25	25	20	18		
* Additional Value-added Credits (Audi)	NSS/NCJ/Sports/Cultural Activities/Yoga & Wellness	1	Semester-I-IV																								
	Seminar	2	Semester-V/VI																								
	MOOCs	2	Across Sem-I/II																								
	Summer Internship Industrial Tour	2	After Semester IV/V/VI																								



Ajay



**Department of Biological Sciences, PDP/IAS
Bsc (Biochemistry) Proposed Curriculum Structure AY 2022-23**



Exit Options Possible	Certificate Course (Min 42 Credits)				Diploma Course (Min 88 Credits)				B. Sc Degree Course (Min 138 Credits)				B Sc (Home/Research) (176 Credits)		Semester-VIII	Credit
	Semester-I		Semester-II		Semester-III		Semester-IV		Semester-V		Semester-VI		Semester-VII			
Type of Course	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit
Core Course (Theory)	Chemistry	3	Principles of Biochemistry	3	Fundamentals of Cell Biology	3	Fundamentals of Molecular Biology	3	Immunology	3	Bioinformatics	3	Apprenticeship	12	Bionstrumentation and Bioanalytical Skills	4
	Animal Biology	3	Fundamentals of Microbiology	3	Concept of Genetics	3	DSC-1- Microbial Biochemistry/Physiology	2	DSC-1-Metabolism and its disorders-II	3	DSC-1-Nutrition	3	Genomics and Proteomics	2	Research Project	8
	Plant Biology	3	Tools and Techniques in Biology	3	DSC-1-Biomembranes & Bioenergetics	2	DSC-2-Human Anatomy and Physiology	3	DSC-2-Plant Biochemistry	3	DSC-2-Clinical Biochemistry and Pathophysiology	3	Research Methodology			
	Ecology and Environment	2	Foundations of Biotechnology	2	DSC-2- Proteins and Enzymes	3	DSC-3-Metabolism and its disorders-I	3	rDNA Technology	3	Statistics for Data Analysis	2	Artificial Intelligence in Life Science Applications/			
Core Course (Lab)	Laboratory in Biological Sciences-I	6	Laboratory in Biological Sciences - II	6	Laboratory in Biochemistry- I	6	Laboratory in Biochemistry-II	6	Laboratory in Biochemistry-III	6	Laboratory in Biochemistry-IV	6	Data Mining and Machine Learning for Life Sciences/ Data Analytics/System Biology Tools			2
Discipline specific Elective (DSE)																
Ability Enhancement Compulsory Course (AECC)	Communicative English	2	Liberal arts	2	Creativity Problem Solving and Innovation	2	Human Values and Professional Ethics	2	Communication and Soft Skills	2	Contributory Personality Development	2				
Skill Development Course (SEC)	Foundation Course on Biology and Chemistry (Proposed Waive Off)		Foundation Course on Mathematics and Physics	2												
Elective: Generic/University					University Elective I	2	University Elective II	2								
Additional/Value-added credits*																
Total		21		21		23		23		25		25		20		18

*Additional Value-added Credits (Audit)	NSS/NCC/Sports/Cultural Activities/ Yoga & Wellness	Semester-I-IV
Seminar		2
MOOCs		2
Summer Internship		2
Industrial Tour		2



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Department of Biological Sciences, PDPPIAS
MSc (Biotechnology) Proposed Curriculum Structure AY 2022-23



Type of Course	Semester-I		Semester-II		Semester-III		Semester-IV		Credit
	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit	
Core (Theory)	Microbiology	3	Bioanalytical Methods and Techniques	3	Immunology	3	Research Methodology	2	
	Biochemistry	4	Molecular Genetics	3	Bioinformatics & Omics	3	Bioentrepreneurship and IPR	2	
	Cell Biology	3	Genetic Engineering	3	Plant Development and Biotechnology	3	Research Project Proposal	2	
	Molecular Biology	4	Animal Biotechnology	3	Environment Biotechnology	3	Research Project	18	
Discipline Specific Core (DSC)	Evolution and Ecology	2	Bioprocess Engineering	3	Industrial Biotechnology	3			
Core (Laboratory)	Experimental Skills in Biotechnology-I	6	Experimental Skills in Biotechnology-II	6	Experimental Skills in Biotechnology-III	6			
Elective: Discipline specific (DSE)					DSE-I Molecular Forensics	2	DSE-II	2	
Ability Enhancement Compulsory Course (AECC)	Academic Speaking and Presentation Skills	2	Academic Writing	2	Biostatistics	2			
Skill Development Course (SEC)- Workshop mode, audit course	Science for Community Development	2	Review Paper	1	Research Seminar	1			
			University Elective-I	2					
Total		26		26		26		26	

DSE-II Elective Cluster
Systems Biology Tools
Cancer Biology
Nanomaterials in Biotechnology
Development Biology
Quality control & assurance
Industrial Waste Management and Sustainability
Molecular Plant microbe interactions





Department of Biological Sciences, PDPPIAS
MSc (Microbiology) Proposed Curriculum Structure AY 2022-23



Type of Course	Semester-I		Semester-II		Semester-III		Semester-IV	
	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit
Core (Theory)	Microbiology	3	Bioanalytical Methods and Techniques	3	Immunology	3	Research Methodology	2
	Biochemistry	4	Molecular Genetics	3	Bioinformatics & Omics	3	Bioentrepreneurship and IPR	2
	Cell Biology	3	Genetic Engineering	3	DSC-4-Industrial Microbiology	3	Research Project Proposal	2
	Molecular Biology	4	DSC-2-Microbial Enzymes and Physiology	3	DSC-5-Molecular Pathogenesis	3	Research Project	18
Discipline Specific Core (DSC)	Evolution and Ecology	2	DSC-3-Bioprocess Engineering	3	DSC-6-Environmental Microbiology	3		
Core (Laboratory)	Experimental Skills in Microbiology-I	6	Experimental Skills in Microbiology-II	6	Experimental Skills in Microbiology-III	6		
Elective: Discipline specific (DSE)					DSE-I-Microbial Ecology & Diversity DSE-I-Agricultural Microbiology	2	DSE-II	2
Ability Enhancement Compulsory Course (AECC)	Academic Speaking and Presentation Skills	2	Academic Writing	2	Biostatistics	2		
Skill Development Course (SEC)- Workshop mode, audit course	Science for Community Development	2	Review Paper	1	Research Seminar	1		
Total		26		26		26		26

DSE-II Elective Cluster
Systems Biology Tools
Cancer Biology
Nanomaterials in Biotechnology
Development Biology
Quality control & assurance
Industrial Waste Management and Sustainability
Molecular Plant microbe interactions





Department of Biological Sciences, PDPPIAS
MSc (Biochemistry) Proposed Curriculum Structure AY 2022-23



Type of Course	Semester-I		Semester-II		Semester-III		Semester-IV	
	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit	Name of Subject	Credit
Core (Theory)	Microbiology	3	Bioanalytical Methods and Techniques	3	Immunology	3	Research Methodology	2
	Biochemistry	4	Molecular Genetics	3	Bioinformatics & Omics	3	Bioentrepreneurship and IPR	2
	Cell Biology	3	Genetic Engineering	3	DSC-4: Human Physiology: Disorders and Diagnostics	3	Research Project Proposal	2
	Molecular Biology	4	DSC-2: Enzymology	3	DSC-5: Plant Biochemistry	3	Research Project	18
	Evolution and Ecology	2	DSC-3: Bioenergetics & Metabolism	3	DSC-6: Microbial Biochemistry & Physiology	3		
	Experimental Skills in Biochemistry-I	6	Experimental Skills in Biochemistry-II	6	Experimental Skills in Biochemistry-III	6		
Elective: Discipline specific (DSE)					DSE-I-Molecular Nutrition			
					DSE-I-Neurochemistry	2	DSE-II	2
					DSE-I-Biomolecular Engineering			
					DSE-I-Toxicology			
Ability Enhancement Compulsory Course (AECC)	Academic Speaking and Presentation Skills	2	Academic Writing	2	Biostatistics	2		
Skill Development Course (SEC)- Workshop mode, audit course	Science for Community Development	2	Review Paper	1	Research Seminar	1		
Total		26	University Elective-I	2		26		26

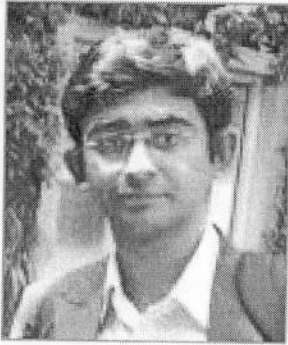
DSE-II Elective Cluster
Systems Biology Tools
Cancer Biology
Nanomaterials in Biotechnology
Development Biology
Quality control & assurance
Industrial Waste Management and Sustainability
Molecular Plant microbe interactions



सीएसआईआर-एकीकृत कौशल पहल कार्यक्रम CSIR-Integrated Skill Initiative Program

“FERMENTATION TECHNOLOGY”

20th Feb. 2023 to 24th Feb. 2023



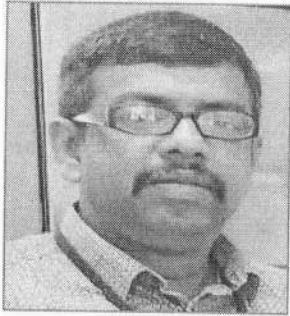
Dr. Sourish Bhattacharya,
CSIR-CSMCR



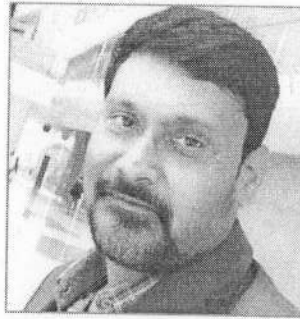
Dr. S. Singh,
NIT Warangal



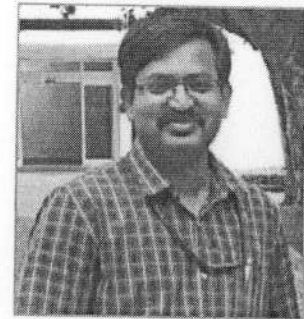
Dr. Anupama Srivastava,
Parul University



Dr. Debashish Ghosh,
CSIR-IIP, Dehradun



Mr. Sreenadh Madapati
Abode Biotec India Pvt. Ltd.



Dr. Rahul Bhambure
CSIR-NCL Pune



सीएसआईआर - सीएसआईआर
CSIR - CSMCRI

केन्द्रीय नमक व समुद्री रसायन अनुसंधान संस्थान
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद, भारत)
गिजूभाई बधेका मार्ग, भावनगर 364002 (गुजरात)

CSIR- Central Salt & Marine Chemicals Research Institute

(Council of Scientific & Industrial Research, India)

Gijubhai Badheka Marg, Bhavnagar – 364 002 (Gujarat)

www.csmcri.res.in



CSIR Integrated Skill Initiative



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Experts:

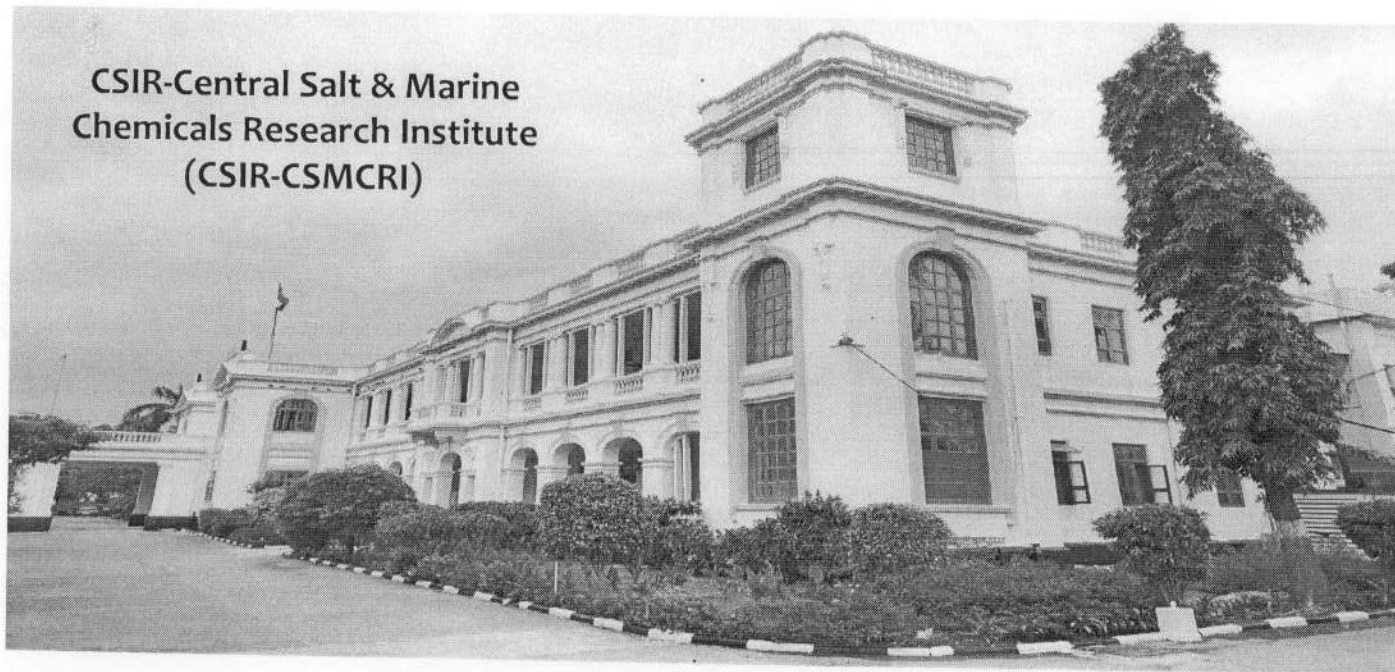
Dr. Sourish Bhattacharya is working as a Scientist at CSIR-Central Salt & Marine Chemicals Research Institute, Bhavnagar Gujarat, India. He is having a strong background in the area of microalgal biotechnology, microalgal biofuel, biopolymers and nutraceuticals for therapeutic applications.

Dr. Anupama Shrivastava is working as Head of the Biotechnology Department at Parul University. Her area of expertise involves microbial synthesis of biopolymers.

Dr. Debashish Ghosh is currently working as a Principal Scientist at CSIR-Indian Institute of Petroleum, Dehradun. He is having 17 years of R&D experience in microbial fermentation and bioprocess development. Dr. Ghosh primarily works on bioprocess development from biomass to 2nd and 4th generation biofuels / oleo chemicals / nutraceuticals / biopolymers through ethanologenic and oleaginous yeast mediated fermentation, material resource efficiency, life cycle impact assessment. Presently Dr. Ghosh is heading Biochemistry and Biotechnology Area, Material Resource Efficiency Division, at CSIR-IIP.

Mr. Sreenadh Madapati is working as a Director-Business Development at Abode Biotec India Pvt. Ltd. and has experience in leading the probiotics based business in India.

Dr. Rahul Bhambure is working as a Senior Scientist at CSIR-National Chemical Laboratory, Pune. His expertise is in the area of process development for protein drugs molecules used for treatment of infectious diseases.



सी एन आर - सी एन आर
CSIR - CSMCRI

केन्द्रीय नमक व समुद्री रसायन अनुसंधान संस्थान
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद, भारत)
गिजूभाई बधेका मार्ग, भावनगर 364002 (गुजरात)

CSIR- Central Salt & Marine Chemicals Research Institute

(Council of Scientific & Industrial Research)

Gijubhai Badheka Marg, Bhavnagar – 364 002 (Gujarat)

www.csmcri.res.in

75
आज़ादी का
अमृत महोत्सव



CSIR Integrated Skill Initiative

Background

Microbes are important in every part of our life and are widely exploited industrially in agro, food, pharma, chemical, energy, waste treatment, etc. The process for product development may differ but the underlining principles in all the above mentioned processes involves fermentation technology. The skill development programme on fermentation technology aims to introduce the basics of industrial fermentation process involving basic knowledge required for fermentation, parameters to be controlled during fermentation, its industrial application and recent technological advances.

Beneficiaries of the course

- Process Engineers
- Shift Engineers
- Biotech and Food Industry
- Quality Control Manager
- Lab Technicians
- Fermentation based industries
- Entrepreneurs in Pharma Sector

Benefits of the course

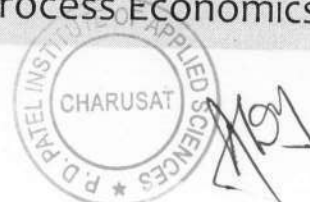
The courses will be useful for the graduates aspiring to work in Pharma, biotech and food industries, fermentation industries or for the person who are already employed in the industries to sharpen their skills.

Focus on current needs of fermentation industry.

Course duration: 5 days

COURSE DETAILS

- Fermentation principles
- Bioreactor design
- Pilot scale experiments
- Downstream (purification) process and products formulation
- Material and Energy Balance Computations and Process Economics



Training Program Fee

₹ 1000/- + ₹ 180/- GST = ₹ 1180/-	Category I : Self- sponsored [Students, Individual (other than student) and Entrepreneur (as an individual)]
₹ 5000/- + ₹ 900/- GST = ₹ 5900/-	Category II : Any sponsored candidate (Government, Industry and sponsored by Entrepreneur)

DIGITAL PAYMENT ONLY WILL BE ACCEPTED and NO CASH TRANSACTION.

Details of Fee Deposit

(Payment through RTGS/ NEFT only)

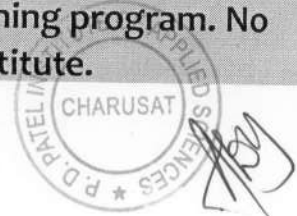
Amount (₹)	:	
Bank Name	:	
Branch Name	:	
Account No.	:	
Transaction ID and Date	:	
Signature of Depositor/ Candidate		
Name: _____		

Kindly submit completed form on/ before 12th February 2023

To Dr. Sourish Bhattacharya at email : sourishb@csmcri.res.in,
+91-8017750689

NOTE: Candidates with all required information and fees deposited through digital mode only will be accepted and will be selected based on their CV in the said training program. Please submit a printed copy of fees receipt and a xerox copy of the AADHAR Card during training program, if selected.

Accommodation for staying at Bhavnagar has to be arranged by Candidates only. The candidate has to produce their double dose completion certificate for introducing COVID-19 protective vaccines during joining to the training program. No accommodation will be provided by the Institute.





केन्द्रीय नमक व समुद्री रसायन अनुसंधान संस्थान
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद, भारत)
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आजादी का
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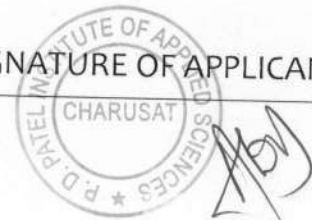


CSIR Integrated Skill Initiative

TRAINEE ENROLLMENT FORM

TITLE OF SKILL DEVELOPMENT PROGRAM	:	FERMENTATION TECHNOLOGY
DATE(S), TIME AND VENUE	:	CSIR-CSMCRI, Bhavnagar 20th Feb. 2023 to 24th Feb. 2023
FULL NAME OF TRAINEE	:	
FATHER'S / HUSBAND'S NAME	:	
DATE OF BIRTH (DD/MM/YYYY)	:	
GENDER (MALE / FEMALE / OTHERS)	:	
CATEGORY (SC / ST / OBC / EWS / GENERAL)	:	
PHYSICALLY DISABLED (YES / NO)	:	
CURRENT STATUS (working/ entrepreneur/ student/ unemployed/ school dropout)	:	
QUALIFICATIONS	:	
PHOTO ID NUMBER (Aadhaar/ PAN/ Voter ID/ Passport)	:	
MOBILE NUMBER	:	
ALTERNATE MOBILE NUMBER	:	
EMAIL ADDRESS	:	
TRAINEE'S DOMICILE (RURAL / URBAN)	:	
FEE PAYMENT DETAILS	:	
DATE:		

SIGNATURE OF APPLICANT



Bank details of CSIR-CSMCRI for Trainee Program Fee



केन्द्रीय नमक व समुद्री रसायन अनुसंधान संस्थान

गिजुभाई बधेका मार्ग, भावनगर- ३६४ ००२

CSIR-CSMCRI CSIR-CENTRAL SALT & MARINE CHEMICALS RESEARCH INSTITUTE

Gijubhai Badheka Marg, Bhavnagar 364 002, Gujarat, India

Phone No. (O) 0278, 2471792 E-mail: fao@csmcri.org

Electronic Fund Transfer Account Details

1	Name of account holder	DIRECTOR, C.S.M.C.R.I.
2	Address	GIJUBHAI BADHEKA MARG, BHAVNAGAR 364002
3	e-mail address	fao@csmcri.org
4	Phone No./Mobile No.	0278-2471792
5	Fax No.	0278-2567562
6	Permanent Account Number (PAN)	AACCC1313P
7	Particulars of Bank Account	
	A. Name of the Bank	STATE BANK OF INDIA
	B. Name of the Branch	WAGHAWADI ROAD BRANCH
	C. Branch Code	10863
	D. Address	Shubham Shop No.G2/3, Plot No.2569 E1/2, Waghawadi Road Opp. Gulista Ground, Bhavnagar-364002 e-mail: sbi.10863@sbi.co.in
	E. Telephone No	0278- 2569884
	F. Account No.	30267310153
	G. Type of Account	SAVINGS BANK ACCOUNT
	H. IFSC Code (RTGS/NEFT)	SBIN0010863
	I. MICR code	364002023



14:24



D Sourish Bhattacharya 23 Jan
to me ▾

Dear Mr. Vatsal Shah,

With reference to your application for the Skill Development Programme on Fermentation Technology, I hereby confirm you that your application has been considered for the training programme. Accordingly, you are requested to kindly transfer the registration fees of Rs.1180/- to the mentioned bank account (details attached herewith) at the earliest. Further, after the transaction is complete, kindly fill the registration form mentioning the desired details especially the amount (INR), Bank Name, Branch Name, Account No., Transaction ID and Date. Thereafter, kindly send me the scan copy of duly filled and duly signed copy of the registration form immediately to my email id after the transaction is completed.

Best wishes!!

Sourish Bhattacharya,

Dr. Sourish Bhattacharya

Senior Scientist

Process Design and Engineering Division

14:25



Payment of the registration fees of National skill development program on "Fermentation Technology" at CSIR-CSMCRI Inbox ★

D me 24 Jan
to sourishb ▾

Respected sir,
I would like to thank you for accepting my application. I have hereby attached the scan copy of duly filled and duly signed copy of registration form and I have also paid the registration fees worth 1180/- to the mentioned bank account. PFA

Thanks & Regards

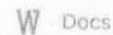
...

State Bank of India.pdf



PDF

Registration form_Vatsal sh...



Docs

D Dr. Sourish Bhattachar... 10 Feb
to me ▾

Dear Mr. Vatsal Shah,



14:26



Registration form_Vats...



Registration form

(Payment only through RTGS/ NEFT)

Amount 1180 (INR):

Bank Name: _____ State _____ bank of India

Branch Name: _____ SALOON BAZAAR NADIAD

Account No. 20314363266

Transaction ID and Date: IHR1452149 AND 23
January 2023 11:55 PM

Vatsal Shah

Signature of Depositor/ Candidate
Fee structure (non-refundable): Category I self-sponsored (student)

Rs. 1000/- + Rs.180/- GST - Rs.1180/-	• Category I: Self-sponsored [Students, Individual (other than student) and Entrepreneur (as an individual)]
Rs. 5000/- + Rs.900/- GST - Rs.5900/-	• Category II: Any sponsored candidate (Government, Industry and sponsored by Entrepreneur)

14:26



PDF PDF W Docs



Dr. Sourish Bhattachar... 10 Feb

to me

Dear Mr. Vatsal Shah,

I hereby confirms your registration for the Skill Development Programme on Fermentation Technology. However, we are postponing the Skill Development programme to March i.e. 13th March to 17th March as some of the candidates have their Semester Exams in February. In that regard, kindly let me know your availability and consent for the same. The revised programme would be sent to you shortly.

Regards,

Sourish.



Spreadsheet shared with you: "Demonstration and training for Trinocular Microscope @311-B "

1 message

Ruchi Chaturvedi (via Google Sheets) <ruchichaturvedi.bio@charusat.ac.in>

Wed, Jan 18, 2023 at 7:45 AM

Reply-To: Ruchi Chaturvedi <ruchichaturvedi.bio@charusat.ac.in>

To: pdpiasbiologicalsciencesfaculties@charusat.ac.in

Ruchi Chaturvedi shared a spreadsheet



Ruchi Chaturvedi (ruchichaturvedi.bio@charusat.ac.in) has invited you to **edit** the following spreadsheet:


Dear All,

The demonstration and training session for Trinocular Microscope (Room No. 311B) is organised on 21/01/23, Saturday. Kindly add your names to the slots provided in the sheet.

As discussed with the HoD, this training is compulsory for all lab technicians so kindly occupy the slots convenient to you.

Faculties are requested to nominate upto two M.Sc students from their dissertation group who are likely to employ microscopic techniques frequently in their dissertation for the training process. Also kindly inform your research students who have joined in the current year to register for the same.

Ruchi.

 **Demonstration and training for Trinocular Microscope @311-B**

Open

Google LLC, 1600 Amphitheatre Parkway, Mountain View, CA 94043, USA
You have received this email because ruchichaturvedi.bio@charusat.ac.in shared a spreadsheet with you from Google Sheets.

Google Workspace

