P D Patel Institute of Applied Sciences (2015-2016)

Curriculum feedback analysis and action taken report

Sr. No.	Stakeholder	Feedback	Action Taken
1	Industry experts	No Comments	NA
2	Employers	No Comments	NA
3	Academic Peers	Students should be trained for academic speaking	Students were trained by encouraging them for giving scientific seminars where they were mentored by faculties for the same for all BSc students (sample certificate copy attached- Annexure 1) To train students for academic speaking, for dissertation presentation pattern was decided and followed (minutes of departmental meeting attached – Annexure 2).
4	CHARUSAT teachers	Student practical skills should be improves	To improve practical skills more instrument were procured and laboratories were established. Mini project was offered to BSc semester V students. (Departmental minutes - Annexure 3, list of students with mentor details and one sample copy of certificate attached – Annexure 4)
5	Alumni	Industry oriented subjects should be added	Changes were initiated and subjects like Analytical techniques in Biology, General virology etc were offered as core courses (teaching scheme 2017-18 attached –Annexure 5)
6	Parents	Improve the food quality within the campus	Appropriate authorities have been advised for the required changes
7	Present students	More expert lectures should be arranged along with science tours for students	Industrial tour at Bills Biotech Pvt Ltd park and Savli Biotech Incubator on 9/11/2017 (Report attached – Annexure 6)

		students	Incubator on 9/11/2017 (Report attached)



Annexure -1

CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

P. D. Patel Institute of APPLIED SCIENCES

CERTIFICATE OF PARTICIPATION

This is to certify that **KAGDI ZAYNAB** with Enrollment No. **14BSC017**, a student of B.Sc. Semester VI, has enthusiastically participated in Value Added Course "**Scientific Seminars**" (of more than 30 contact hours) offered by the Department of Biological Sciences, PD Patel Institute of Applied Sciences (PDPIAS), Charotar University of Science & Technology (CHARUSAT), Changa, Gujarat during the academic year 2016-17.

Dr. Aditi Buch
Course Incharge
Department of Biological Sciences,
PDPIAS, CHARUSAT

Dr. Janki N. Thakkar
Head of the Department,
Department of Biological Sciences,
PDPIAS, CHARUSAT

Annexure -2

PDPIAS, CHARUSAT

Minutes of the Meeting (Department of Biological Sciences)

Date: 13th February, 2016

Venue: Staffroom (No. 201)

Dr. Bragdish Iyer

Dr. Darshan Patel

Dr. Seema Amin

Dr. Gayatri Dave

Dr. Aditi Buch

Dr. Janki N Thakker

Dr. Palash Mandal

Dr. Chirayu Desai

Dr. Jagdish Patel

Dr. Hilor Pathak

Agenda for meeting

Departmental purchase committee meeting for instruments below one lakh

1. Stereo Microscope (1): All the faculties recommended to purchase the stereo microscope of Carl Zeiss. It is for B.Sc. and M.sc. Students. The selected Carl Zeiss Microscope is providing the good zooming option i.e 5:1 as well as superior quality images compared to other quoted microscopes.

2. Microscopes (20): All the faculties have recommended the purchase of MLM quoted by shakti Scientific (The lowest quote was offered by Kheteshwar trade link but it is without light source. We asked for the Prize for the GL1 substage but he did not gave the quotation or reply). So all the faculties suggested to purchase the microscopes from shakti scientific

PDPIAS, CHARUSAT
Minutes of the Meeting (Department of Biological Sciences)
Date: 5th March, 2016
Venue: Staffroom (No. 201)

Dr. Bragdish Iyer

Dr. Darshan Patel

Dr. Seema Amin

Dr. Gayatri Dave

Dr. Aditi Buch

Dr. Janki N Thakker

Dr. Jagdish Patel

Dr. Palash Mandal

Dr. Chirayu Desai

Dr. Jagdish Patel

Dr. Hilor Pathak

Agenda for meeting

1. Dissertation internal presentation and External Presentation
2. External practical exam
3. Instrument maintenance
4. Subject distribution for next semester
5. Requirements for next semester

Faculty members decided and agreed for

1. Dissertation internal presentation-

Date of internal presentation – 25th March, 2016

Time- 0.9.30 A.M. onward

Duration – 15 minutes (10 minutes presentation and 5 minutes defense)

It was decided that questions will be asked only after student completes the presentation

Distribution of Marks for research project proposal- 50 Marks

a) Style of presentation (20 Marks)- it will include introduction, hypothesis, materials and methods or workflow, results, confidence, slide preparation which will include spacing etc (all faculties will give marks including guide)

b) Content (10 Marks) – work progress, efforts, regularity, sincerity, dedication (Guide will give marks) Highest marks should not be more than 8 and lowest not less than 5

c) Defense (20 Marks) - understanding and defense (all faculties will give marks including guide)

2. External and internal practical exam for M.Sc.

Date for external practical exam will be from 27th April to 29th April and all faculties taking subjects will give practical performance. Dr. Subramanian or Dr. Devesh Suthar will come for semester II practical exam of BT and for Microbiology Dr. Ujjaval Trivedi will come for practical exam.

Internal practical exam will be from 21st to 23rd April, 2016. Last date for Journal certification is 14th April, 2016

3. Subject distribution- Dr. Seema Amin opened her subject of Agriculture microbiology. Other subject distribution will be decided after discussion with Principal Sir

4. Instrument Maintenance

Dr. Seema Amin informed about progress of maintenance of instrument like shakers, incubators etc. Dr. Janki informed about the AMC approval for Biorad and the new Dongle for Biorad will be available with Dr. Bragadish Iyer and students should issue the Dongle from Dr. Iyer.

Dr. Seema Amin informed all the faculties that AMC of UV spectrophotometer is done and in case of any problem we can contact Hetal Bhai

5. Requirements for next semester- Date of Requirement submission for next semester will be decided after discussing about the subject distribution with Principal Sir

6. Admission activity: As part of Admission activity Dr. Janki and Dr. Dashan informed about the planning of training for B.Sc. students (Discussion for training was done earlier with Principal Sir). In next faculty meeting training duration, faculty involved and other details will be discussed.

Annexure 3

PDPIAS, CHARUSAT

Minutes of the Meeting (Department of Biological Sciences)

Date: 17/12/2015

Venue: Staff Room (No. 201)

The meeting of Staff members of Department of Biological Sciences was held on 17th December, 2015 at Room no. 201 from 2.00 p.m. onwards.

Following members were present in the meeting.

Dr. Jagdish Patel
Dr. Bragdish Iyer
Dr. Seema Amin
Dr. Gayatri Dave
Dr. Aditi Buch
Dr. Neeraj Jain
Dr. Hilor Pathak
Dr. Darshan Patel
Dr. Chirayu Desai
Dr. Janki N Thakker

Agenda for meeting – Discussion regarding instruments required for Biological sciences (M.Sc. + B.Sc.)

Following instruments were finalized after discussion with all Biological Sciences faculties. Details attached

INSTRUMENTS REQUIRED FOR B.Sc.

No.	Name	Justification	Quantity
1.	Stereo Microscope	Required for experiments in Genetics for the courses BS 206, BT 401, MS 706	03
2.	Agarose Gel electrophoresis Unit with Power Pack	Required for experiments of BS 203 & BS 202	06
3.	UV Cabinet	Required for the experiments of BT 401, MI 401, MS 706 & BS 206	01
4.	UV-Hand Held Lamp	Required for the experiments of BT 401, MI 401, MS 706 & BS 206	05
5.	Polarimeter	Required for chemistry practicals of B.Sc.	01
6.	Microtome	Required for preparation of specimens in B.Sc	01
7.	BOD Incubator (Above Ice)	For cultivation of microbes	01
8.	Incubator	"	01
9.	UV-transilluminator	Required for experiments of BS 402, BS 403, BS 502	02
10.	Micropipettee	Required for all courses	08 set

12. Autoclave
13 Light compound Microscope Required for BS BTAY 305, BS 206, BS 201

Neeraj Jethi

Dr. Aayati Dave

Dr. Jagdish Patel

Dr. Jagdish Patel

Dr Janki Thakkar

Dr. Brajadish Iyer

Dr Seema Amin

Chirayu Doni

Hitor Pathak

Aditi Bhatt

INSTRUMENTS FOR M.Sc. (REQUIREMENTS)

o.	Name	Justification	Quan
1.	Autoclave	Routine microbial media preparation and decontamination for all courses	02
2.	Refrigerated Centrifuge	For centrifugation requirements of heat labile metabolites like proteins, DNA, enzymes, etc.	01
3.	Shaker with incubator facility	For growth of microbial cultures in all M.Sc. courses including dissertation	03
4.	Ice flake machine	For handling of life-science based samples and associated practicals designed for M.Sc. courses.	01
5.	Distilled water system (40L per day capacity)	Basic requirement for laboratory experiments	01
6.	UV-Visible spectrophotometer with software (for documentation) and water peltier system	Basic requirement facility for M.Sc. practicals and dissertation	01
7.	Thermocycler	For M.Sc. experiments including dissertations	02

17/12/15 17/12/15 17/12/15 17/12/15

New laboratory (01) for plant tissue cultures (PTC) courses in B.Sc. and M.Sc. with required facil

Fermentor and accessories.

For teaching of bioprocess/fermentation technology to both MSc and BSc students.

Peristaltic pump:

For teaching bioprocess/microbial technology to MSc students.

Small sample adapter & spindle S-18 for Brookfield viscometer.

For teaching of rheological properties of fermentation broth and other fluids to MSc students.

Lyophilizer

For concentrating enzymes and proteins. Drying of heat labile compounds.

Electroporater

For genetic engineering of organisms.

Shaker room (orbital shaker with ambient temp. control)

(Brahmadesh Iyer)

(Tushar Pathak)

Seema Jain

Jagdish Patel

Neeraj Jain

AD Bhatt

DLT.
17/12/2015

Real-time PCR: Required for MSc practicals & dissertation

Thermocycler :- Required for MSc practicals and dissertation

14.12.15

Fluorescence Microscope :- Required for Higher SEM B.Sc, M.Sc. CBC/BT/MI) and dissertation Exp

17/12/15

4

Annexure 4

PDPIAS, CHARUSAT
Minutes of the Meeting (Department of Biological Sciences)
Date: 03/05/2016
Venue: Meeting room (No. 104)

The meeting of Staff members of Department of Biological Sciences with Principal sir was held on 3rd May, 2016 at Room no. 104 from 10.00 A. M. Onward

Following members were present in the meeting.

Dr. Jagdish Patel
Dr. Neeraj Jain
Dr. Seema Amin
Dr. Gayatri Dave
Dr. Aditi Buch
Dr. Neeraj Jain
Dr. Hilor Pathak
Dr. Palash Mandal
Dr. Janki N Thakker
Dr. Darshan Patel

Agenda for meeting

1. Checking the overlaps in time table for next semester.

All the faculties checked the proposed time table for the respective overlaps if any of their workloads.

Minor changes were made in the proposed time table considering the few overlaps of workload.

The time table was finalized; however, it arose requirement of 11 functional laboratories simultaneously.

Dr. Gayatri Dave requested Prof. Upadhyay to intervene for the same, the requirements was justified and sir agreed on providing 11 functional laboratories simultaneously (5 on first floor for M.Sc./B.Sc. and 6 on second floor for B.Sc.)

All the faculties discussed about the instrument requirements for the new constructed labs and came to a consensus of a list of instruments (The list is with Dr. Dave).

All faculties also discussed about the execution mode of the 2 credit mini project to be given to the 5th semester students. However, it remained undecided.

The faculties also discussed about the instrument requirement given by the research students to Upadhyay sir and it was decided to share the cyclomixer from lab 208 to the research lab.

* Dr. Chirayu Desai- was busy with paper submission duty.

Dr. Bragdish Iyer was busy with e governance duty.

P D Patel Institute of Applied Sciences
Department of Biological Sciences
Academic Year 2016-17: Distribution of the B Sc Semester V students for Mini-project

NO	ID NO	NAME	Allocated faculty	Name of the topic (tentative as submitted)	Lab allocated
1	14BSC002	BHAVSAR MEGHA MANOJ	Dr Gayatri Dave	Biofuels and Microalgae	Room No. 326
2	14BSC003	BHAVSAR NISHIBEN SHAILESHBHAI			
3	14BSC004	CHANDNANI PRIYANKA HARESH			
4	14BSC005	CHANGANI BANSI VALLABHBHAI			
5	14BSC006	CHAUHAN BHAVIKA PUNJABHAI			
6	14BSC007	DAMA GAURAV ASHOKBHAI			
7	14BSC008	DAVE DOLLY HITENKUMAR			
8	14BSC009	DAVE RAJVI PRASHATBHAI			
9	14BSC010	DHUMMAD VAIBHAVIBAHEN PRAVINSINH			
10	14BSC011	DIXIT BANSARI MITESH			
11	14BSC012	DOBARIYA VIREN DINESHBHAI			
12	14BSC014	JADEJA CHAITANYARAJ JAYESHKUMAR			
13	14BSC015	JADEJA HEENABA NAVALSINH	Dr Neeraj Jain	Human genomic DNA isolation and single nucleotide polymorphism analysis using allele specific PCR	Room No. 326
14	14BSC016	JOSHI MINAL SANDIPKUMAR			
15	14BSC017	KAGDI ZAYNAB			
16	14BSC018	KANSARA ISHVA NIRANJANBHAI			
17	14BSC019	KOTADIYA ADITI GHANSHYAM			
18	14BSC020	KUMAWAT HIMANI KAMLESH			
19	14BSC021	MAGUKIA HASTI KIRITBHAI			
20	14BSC023	MAHIDA HEENABEN DILIPSINH			
21	14BSC024	MANSURI TANZILBEN FIROZBHAI			
22	14BSC025	MARADIYA RUBY RAMESHBHAI			
23	14BSC026	MEHTA MANALI KETANBHAI			
24	14BSC027	MISTRY VRUNDABEN RAKESHKUMAR			
25	14BSC029	PANDYA NIYATI KAMLESH	Dr Janki Thakker	Isolation and purification of enzyme from plant, microbial or animal cell	Room No. 326
26	14BSC030	PANSURIYA SAKSHI ASHVINBHAI			
27	14BSC031	PARMAR ARPITABEN PRAKASHCHANDRA			
28	14BSC032	PARMAR KEJALBEN PRAKASHSINH			
29	14BSC033	PARMAR KINJAL KANTIBHAI			
30	14BSC034	PATEL ABHISHEK KAMLESHBHAI			
31	14BSC035	PATEL AKSHAYKUMAR ARUNBHAI			
32	14BSC036	PATEL AKSHITKUMAR NATVERLAL			
33	14BSC037	PATEL BHARVI HEMANTKUMAR			
34	14BSC038	PATEL DARSHANKUMAR AJITBHAI			
35	14BSC039	PATEL DHARABEN VISHNUBHAI			
36	14BSC041	PATEL DHRUPAL AMITBHAI			
37	14BSC042	PATEL DHRUVI KIRITBHAI	Dr Drashan Patel	Recombinant protein expression and purification	Room No. 326
38	14BSC043	PATEL DHWANI SATISH			
39	14BSC044	PATEL DIMPY PRITESHKUMAR			
40	14BSC045	PATEL DIVYABEN KHODABHAI			
41	14BSC046	PATEL DRASHTIBAHEN MAHESHKUMAR			
42	14BSC047	PATEL ESHA VIRENDRA			
43	14BSC048	PATEL HARSHKUMAR SURENDRABHAI			
44	14BSC050	PATEL HIRAL KIRANBHAI			
45	14BSC051	PATEL KAJAL PANKAJKUMAR			
46	14BSC052	PATEL KARISHMA AJAY			
47	14BSC053	PATEL KESHABEN SATISHBHAI			
48	14BSC055	PATEL KINJALBEN MAHENDRAKUMAR			
49	14BSC056	PATEL KINJALBEN UMESHCHANDRA			
50	14BSC057	PATEL KOMALBEN CHIMANBHAI			
51	14BSC058	PATEL KRIMA JAYESHBHAI			
52	14BSC059	PATEL KRINAL PRAMTHESHKUMAR			
53	14BSC060	PATEL KRISHNABEN DINESHBHAI			
54	14BSC061	PATEL KRUNAL SHAILESHBHAI			

(CT-4 · BSc Coordinator)

55	14BSC062	PATEL KRUPA PRAFULLBHAI	Dr Palash Mandal	Animal cell culture	Room No. 326
56	14BSC064	PATEL KRUPALI SANJAYKUMAR			
57	14BSC065	PATEL KRUPALI SURESHBHAI			
58	14BSC066	PATEL MADHAVIBEN BHAILALBHAI			
59	14BSC067	PATEL MANALI KRISHNAKUMAR			
60	14BSC068	PATEL MANSI SUNILBHAI			
61	14BSC069	PATEL MRUNALIBEN VASANTBHAI			
62	14BSC070	PATEL NAIYA DILIPBHAI			
63	14BSC072	PATEL NENSYBEN RAJESHKUMAR	Dr Seema Amin	Isolation of feather degrading microorganisms	Room No. 323
64	14BSC073	PATEL NIDHI SANDIPBHAI			
65	14BSC074	PATEL NIDHI VINILKUMAR			
66	14BSC075	PATEL PARI JATINKUMAR			
67	14BSC076	PATEL PARTH ANANDKUMAR			
68	14BSC078	PATEL POOJA PRITESHBHAI			
69	14BSC080	PATEL PRIYALBEN DINESHBHAI			
70	14BSC081	PATEL PURVANG CHIRAG			
71	14BSC082	PATEL RAJ CHETANBHAI			
72	14BSC083	PATEL RIDDHI SANDIP			
73	14BSC084	PATEL RITUKUMARI MAHESHBHAI			
74	14BSC085	PATEL ROSHANIBEN VIJAYBHAI			
75	14BSC086	PATEL RUTU PRAGNESH			
76	14BSC088	PATEL SHIWALI GIRISHBHAI	Dr Aditi Buch	1. Isolation and characterization of plant growth promoting rhizobacteria 2. General Molecular and Microbial Techniques	Room No. 323
77	14BSC089	PATEL TIRTH GOPALBHAI			
78	14BSC090	PATEL TWINKLE NILESHKUMAR			
79	14BSC091	PATEL URJA RAMUBHAI			
80	14BSC092	PATEL VAIBHAVI HITESHBHAI			
81	14BSC093	PATEL VAIDEHI KETANKUMAR			
82	14BSC094	PATEL VAIDEHI LALENDRA			
83	14BSC095	PATEL VANDAN RAJENDRAKUMAR			
84	14BSC096	PATEL VIDHI AMITKUMAR			
85	14BSC097	PATEL VIDHI RAKESHKUMAR			
86	14BSC100	PATEL VRUSIKABEN ASHOKBHAI			
87	14BSC101	PATEL VRUTIBEN PARESHBHAI			
88	14BSC102	PATEL YASH JAYESHBHAI			
89	14BSC104	SAVALIYA RIDDHI ZAVERBHAI	Dr Chirayu Desai	Isolation of antibiotic producing microorganisms from soil	Room No. 325
90	14BSC105	SAVLANI KHUSHBU MUKESHBHAI			
91	14BSC106	SHAH AMI HITESHBHAI			
92	14BSC107	SHAH HARSH ALKESHKUMAR			
93	14BSC108	SHAH HEER PURVESHBHAI			
94	14BSC109	SHAH KEVAL DEVANGBHAI			
95	14BSC110	SHAH KHUSHBU UTTAMBHAI			
96	14BSC111	SHAH MEET BHUPENDRA			
97	14BSC113	SHAH SHIVANI VIPULBHAI			
98	14BSC115	SHARMA DIVANSHI VIVEKKUMAR			
99	14BSC116	SOLANKI BHARGAVI SANJAY			
100	14BSC117	SOLANKI KRUNALI SURESHKUMAR			
101	14BSC118	SOLANKI MEHUL SURESHBHAI			
102	14BSC119	SONI DEVANGKUMAR KIRITBHAI			
103	14BSC120	SONI SHIVANI SANJAYBHAI	Dr Bragadish Iyer	Microbial cell factories	Room No. 325
104	14BSC121	SONI SWEETY RAKESHKUMAAR			
105	14BSC122	THAKKAR HARMI RAJENDRAKUMAR			
106	14BSC123	TRIVEDI VIBHUTI GITESHBHAI			
107	14BSC125	VASAVA ZINAL THAKORBHAI			
108	14BSC126	VAVADIYA JIGISHABEN VINUBHAI			
109	14BSC127	VISPUTE DIVYANI RAJESH			
110	14BSC128	VOHRA ZENAB MUSTUFA			
111	14BSC129	VYAS DHARA KETANKUMAR			
112	14BSC130	VYAS JAHNAVI JANAKKUMAR			
113	14BSC131	SHARMA KRATEESHA			
114	14BSC132	PATEL PANKTI HITESHKUMAR			

T.Y. BSc coordinator

CHARUSAT

Aditi Buch <aditibuch.biochem@charusat.ac.in>

Execution of Mini-project

Aditi Buch <aditibuch.biochem@charusat.ac.in> Sat, Oct 1, 2016 at 3:16 PM
To: Janki Thakker <jankithakker.bt@charusat.ac.in>, Darshan Patel <darshanpatel.bt@charusat.ac.in>, "Dr. Neeraj Jain" <neerajjain.as@charusat.ac.in>, Chirayu Desai <chirayudesai.bt@charusat.ac.in>, Gayatri Dave <gayatridave.bt@charusat.ac.in>, Bragadish Iyer <bragadish.as@charusat.ac.in>, seema amin <seemaamin.bt@charusat.ac.in>, palash mandal <palashmandal.bio@charusat.ac.in>

Dear Colleagues,

Following are the some details about execution of Mini-Project for B Sc Semester V commencing from 3rd October, 2016 (Monday) and continuing over two weeks.

1. Attached is the distribution of students across labs and allocation of lab technicians and teaching assistants.

2. Students are expected to learn basic preparatory procedures and simple techniques during the schedule while lab technicians and TAs shall facilitate/teach/supervise the use of laboratory equipment as and when required

3.Use of several facilities for e.g. laminar air flow, autoclave, centrifuge, from the already equipped labs from first floor may be required.

4. As informed by Mauna Madam, most of the requirements ordered for, shall be delivered latest by Tuesday (4th October). Several requirements have been purchased on sharing basis and hence they have to be issued as required with the help of lab-technicians.

5. Mini-project report is required to be generated as a mark of its successful completion, the format for which will be provided shortly.

6. As informed earlier, Mini-project is to be conducted on during the lab-slots (i.e 4 days a week; 3hrs/day)

Thanking you in anticipation of your kind co-operation

Regards

Aditi

Miniproject allocation.xlsx
17K

Department of Biological Sciences
P.D. Patel Institute of Applied Sciences, CHARUSAT
Changa-388 421, Dist. Anand. Gujarat, India

CERTIFICATE

I hereby certify that this group project entitled **"Hands on training to learn general molecular and microbiological techniques."** *embodies the results of work done by following students of B. Sc. Program, Department of Biological Sciences, P D Patel Institute of Applied Sciences, Charotar University of Science & Technology, Changa-388 421, during the academic year 2016-2017 for the partial fulfillment of the degree of Bachelor of Science in Biotechnology/Microbiology/Biochemistry. The students have satisfactorily completed the project over two weeks with relative contribution proportional to their attendance and participation.*

Sr No	*ID No.*	*Name of the student*	*Specialization (Biotechnology/Microbiology/Biochemistry)*	*Attendance (%)*
1	14BSC088	PATEL SHIWALI G.	MICROBIOLOGY	82%
2	14BSC090	PATEL TWINKLE N.	BIOCHEMISTRY	96%
3	14BSC091	PATEL URJA R.	MICROBIOLOGY	89%
4	14BSC096	PATEL VIDHI A.	MICROBIOLOGY	82%
5	14BSC102	PATEL YASH J.	BIOTECHNOLOGY	82%

I further certify that this work has not been submitted to other University or Institution for the award of any Degree or Diploma.

Place : Changa

Date:

Supervisor

Annexure 5

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Date : 02/10/2017

P. D. PATEL INSTITUTE OF APPLIED SCIENCES

B.Sc

Syllabus Details

Effective Year 2017-18

Degree : B.SC
Total Subjects : 18
Total Regular Subjects : 5
Total Elective Subjects : 13

Semester : 4

Group Name : HSS-BSC-IV

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOUR	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
HS123.01 E	CRITICAL THINKING AND LOGIC	2.00			2.00	2.00	-	-	0/30	28/70	-	-	100
HS127.01 E	COMMUNICATION SKILLS-2	2.00			2.00	2.00	-	-	0/30	28/70	-	-	100
HS133 E	CREATIVITY, PROBLEM SOLVING AND INNOVATION		2.00		2.00	2.00	-	-	0/30	0/70	-	-	100

Group Name : Core Sem: 4

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOUR	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
MI402	GENERAL VIROLOGY	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50
BT401.	BASIC MOLECULAR GENETICS	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50

Group Name : Core Courses

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOUR	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
BS401	FOUNDATIONS OF IMMUNOLOGY	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50
BS402	BASIC MOLECULAR BIOLOGY-I	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50
BS403	ANALYTICAL TECHNIQUES IN BIOLOGY	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50
BS404	CELL BIOLOGY-II	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50

Annexure 6

Report — B Sc Semester-V Industrial Tour

09th November, 2017

Presented by: Dr Aditi Buch
Coordinator (T.Y BSc)
PDPIAS, CHARUSAT

Date:	**09th November, 2017 (Thursday)**	
Venue:	**Bills Biotech Pvt Ltd, Savli Biotech Park and Savli Biotech Incubator**	
Motive of Visit:	(1) To expose students to the on-field application and magnitude of various bioprocesses that they learn in theory (2) Creating awareness about various support schemes for bio-entrepreneurship	
Relation with curriculum	BE509 Industrial Tour (as per teaching scheme)	
Members participating	**Students**	97 B Sc Semester V Students (as per list attached)
	Teaching Staff	Dr Aditi Buch Dr Bragadish Iyer Dr Gayatri Dave Dr Bhavtosh Kikani
	Non-teaching staff	Mr Ghanshyambhai Patel

Nature of Activities Undertaken

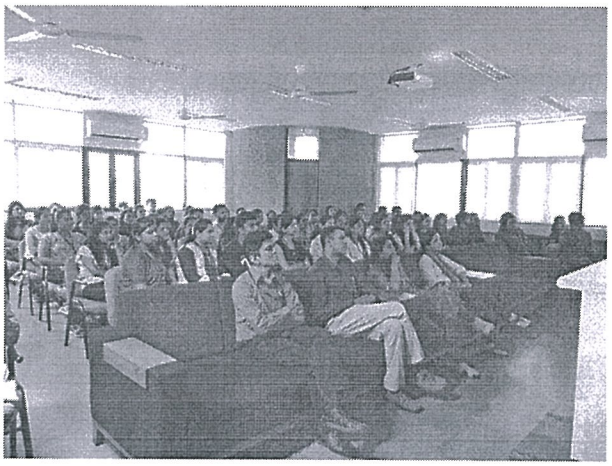
1. Tour commenced at 9:30 a.m from CHARUSAT campus. Dr Gayatri Dave and Dr Bhavtosh Kikani coordinated the assembly and boarding of 91 students from the campus. Two buses from Brahmani Travels were hired for the tour. Dr Aditi Buch and Dr Bragadish Iyer along with 6 other students joined from Baroda.
2. First visit was scheduled at Bill Biotech Pvt Ltd, Savli Biotech Park from 11:15 a.m onwards. The industry representatives demonstrated the large scale fermentor operations, post-production processes, advanced QA lab and waste water treatment plant in 4 batches of students, each accompanied by one faculty. Extremely patient demonstration and explanation at every stage enabled students to understand the industrial scale production of several plant based products in a satisfactory way. The demonstration ended at 1:15 p.m. which was followed by a group photograph at the venue.
3. Subsequently, lunch break was planned at a nearby temple premise at Savli village. The manager at the temple cordially permitted for utilization of the temple premise at our request. As an expression of gratitude a token amount was also donated to the temple trust on behalf of CHARUSAT (receipt attached).
4. Post lunch appointment was procured at Savli Bioincubator; where Ms. Ritu Trivedi presented details about role of bioincubator in facilitating individuals with bright ideas to undertake start-ups. She coordinated with two beneficiaries of the incubator who were already allocated a lab-space there, to come and share their experiences. This turned out to be an interesting experience for the students as per their verbal feedback.
5. The tour culminated at 5:30 p.m. followed by immediate return journey. Snacks were packed and served to the students and accompanying staff in the bus itself. Students reached

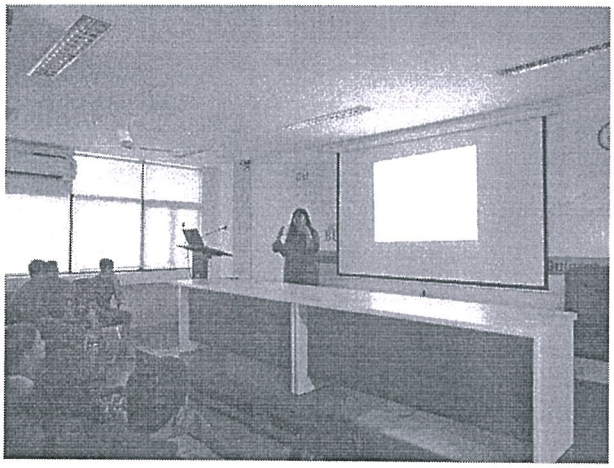
CHARUSAT campus at 8:00 p.m in the evening and their safe reach to their destinations was ensured by accompanying faculties through constant follow-ups.

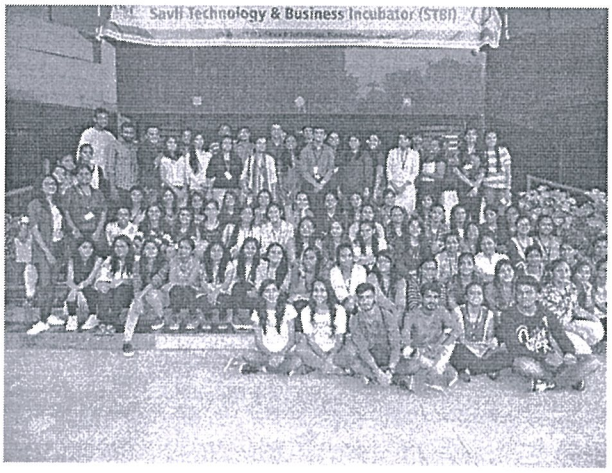
6. Tour was coordinated overall by Dr Aditi Buch while Dr Bragadish Iyer had coordinated the communications with the Industry partners. Dr Gayatri Dave and Dr Bhavtosh Kikani coordinated the students and the related logistics throughout the tour.

Glimpses









Feedback	Students found the industrial tour worth an experience. The purpose of the industrial visit was met satisfactorily.
Output	Personal interactions with representatives of Bills Biotech Pvt. Ltd. followed by their interaction with the students generated a significant goodwill, based on which they have expressed their willingness to train our selected students as well as have projected a scope to aid placement for our deserving students. The visit was fruitful in the sense that, MD of the company Mr. Pinakeen Patel who for some reasons could not meet the faculties on the day of visit, willingly showed up at the subsequently organized UIIC meet organized at CHARUSAT. He thoroughly interacted with the faculties to explore the possibilities of successful industry-academia tie-up.
Remarks	Organization of the tour was undertaken after due approvals from the University.

A D Buch
(I-T-I, BSc Coordinator)

P D Patel Institute of Applied Sciences (2016-2017)

Curriculum feedback analysis and action taken report

Sr. No.	Stakeholder	Feedback	Action Taken
1	Industry experts	Syllabus should reflect the industrial requirements	Subject related to industrial requirement are highlighted (Teaching scheme is attached –Annexure 1)
2	Employers	Students should be given training for facing interviews	Special session on facing interviews were arranged and Seminars were arranged to train students (Details of session attached- Annexure 2)
3	Academic Peers	Syllabus changes needed for covering maximum employable subjects	Enhanced subject electives for life skill have been introduced (Teaching scheme attached- Annexure 3)
4	CHARUSAT teachers	Internships should also be encouraged for undergraduates in summer vacation	Students were encouraged for summer training (Details attached-Annexure 4)
5	Alumni	Different aspects of industrial needs should be explained and trainings needed	Industrial experts lectures have been arranged (List of students with industry details who underwent internship in the year 2019 is attached- Annexure 4)
6	Parents	Enhanced English speaking	Department of communication skills have increased the training sessions for the students (teaching scheme a attached- Annexure 5)
7	Present students	Curriculum should reflect the needs in industries , should help students in facing national exams	Topics relevant to careers in industry and for appearing in national competitive exams have been incorporated (Teaching scheme attached- Annexure 6).

P.D. PATEL INSTITUTE OF APPLIED SCIENCES CHARUSAT

Annexure I

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Date : 02/10/2017

P. D. PATEL INSTITUTE OF APPLIED SCIENCES

B.Sc

Syllabus Details

Effective Year 2017-18

Degree : B.SC
Total Subjects : 22
Total Regular Subjects : 3
Total Elective Subjects : 19

Semester : 5

Group Name : Core Courses

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOUR	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
BS501	BASIC MOLECULAR BIOLOGY-II	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50
BS502	CONCEPTS OF GENETIC ENGINEERING	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50
HS124.01 E	PROFESSIONAL COMMUNICATION		2.00		2.00	2.00	-	-	0/30	0/70	-	-	100

Group Name : BT-MI- 5

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOUR	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
BT501	PRINCIPLES OF BIOPROCESS ENGINEERING AND TECHNOLOGY	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50
MI501	PRINCIPLES OF ENVIRONMENTAL BIOTECHNOLOGY	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50

Group Name : Biotechnology

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOUR	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
BT502	PLANT BIOTECHNOLOGY	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50
BT503	BIOTECHNOLOGY PRACTICALS-II		6.00		6.00	12.00	-	-	0/50	0/100	-	-	150

Annexure 2

Title:
How to face interview?

Expert:
Dr. Devang Joshi, Registrar, Charotar University of Science and Technology, Changa – 388 421

Date:
12th April 2019 and 16th April 2019

Time:
10:00 am to 1:00 pm

Brief report

The CDPC, Biological Sciences, PDPIAS organized expert sessions on the topic entitled, 'How to crack the campus interviews?' for MSc Biotechnology, Biochemistry and Microbiology Semester 4 students on April 13, 2019 and April 16, 2019. We are grateful to Dr. Devang Joshi, Registrar, CHARUSAT for sparing his valuable time and knowledge with the students. On April 12, 2019, Dr. Joshi explained the differences between CV, Resume and Biodata and their relative significance. He also nicely discussed how they can attract attentions the recruiters using their resume/ CV. He also pointed out certain mistakes which are committed by the candidates knowingly or unknowingly. On April 16, 2019, Dr. Joshi explained how to appear and face the personal interview. He convinced the students that the subject knowledge along with the approach, attitude, confidence and dressing style would make a huge impact during the interview. The students were also enlightened how to address some tricky questions during the interview. A Mock round of interview was also arranged among the students to clarify on various aspects. Overall, several doubts and relevant queries of the students were answered during the sessions. The students looked very much encouraged and motivated after the sessions.

We believe this will help them built brighter career.

Best wishes to the students

Regards,

17/4/2019

Bhavtosh A. Kikani, PhD
Member, CDPC (Biological Sciences), PDPIAS
CHARUSAT

Forwarded through

Head
Department of Biological Sciences, PDPIAS
CHARUSAT

3.3.2 (3) 2018-19

CHARUSAT

Kiran Patel <kiranpatel.bio@charusat.ac.in>

Regarding special lecture for MSc Semester-IV student on "How to face job Interview" by Registrar CHARUSAT (12/4/2019, Time :10-15-11.15)

1 message

Head Biological Science <head.bs@charusat.ac.in> Thu, Apr 11, 2019 at 9:46 AM
To: pdpiasbiologicalsciencesfaculties <pdpiasbiologicalsciencesfaculties@charusat.ac.in>

Pleasant Morning to dear colleagues,

I am writing here to request you to inform your dissertation students about the special lecture of our Registrar on "How to face Job Interviews" , I also request you to put an effort to ensure their presence in our conference hall tomorrow by 10.00 am.

Thanking you in advance.
Regards
Gayatri

--
You received this message because you are subscribed to the Google Groups "pdpiasbiologicalsciencesfaculties" group.
To unsubscribe from this group and stop receiving emails from it, send an email to pdpiasbiologicalsciencesfacult ies+unsubscribe@charusat.ac.in.
To post to this group, send email to pdpiasbiologicalsciencesfaculties@charusat.ac.in.
To view this discussion on the web visit https://groups.google.com/a/charusat.ac.in/d/msgid/ pdpiasbiologicalsciencesfaculties/CAA__sCv30k6KrCp%2BgVZVaGAApgH%2B%2B93yez5WiXWdBUg4zba8mA% 40mail.gmail.com.

Total number of participants = 77

Attendance

No	ID No	NAME	16/04/2019
1	17BT001	BADRAKIA JINAL NILESHBHAI	Present
2	17BT002	BATTHINI SAI PRANANK G	Present
3	17BT006	CHARAN SAMINI OMPRAKASH	Present
4	17BT009	DOSANI ASRA WAHID	Present
5	17BT010	JOSHI MINAL SANDIPKUMAR	Present
6	17BT011	JOSHI RIDDHI MANISHBHAI	Present
7	17BT013	KANSARA ISHVA NIRANJANBHAI	Present
8	17BT014	KANSARA PRIYANKA UMESH	Present
9	17BT015	KOTHARI PAYAL VIPUL	Present
10	17BT016	KUMAWAT HIMANI KAMLESHBHAI	Present
11	17BT017	MANSURI TANZILBEN FIROZBHAI	Present
12	17BT018	MISTRY VRUNDABEN RAKESHKUMAR	Present
13	17BT019	MORADIYA VISHAL PARESHBHAI	Present
14	17BT021	PARMAR ARPITABEN PRAKASHCHANDRA	Present
15	17BT023	PATEL DHWANI SATISH	Present
16	17BT026	PATEL KASHYAPKUMAR MAHESHBHAI	Present
17	17BT027	PATEL KINJALBEN MAHENDRAKUMAR	Present
18	17BT028	PATEL KINJALBEN UMESHCHANDRA	Present
19	17BT030	PATEL PARI JATINKUMAR	Present
20	17BT031	PATEL PARTH KHODABHAI	Present
21	17BT032	PATEL POOJA PRITESHBHAI	Present
22	17BT036	PATEL VAIBHAVI HITESHBHAI	Present
23	17BT037	PATEL VAIDEHI KETANKUMAR	Present
24	17BT038	PATEL VANDAN RAJENDRAKUMAR	Present
25	17BT039	SHARMA DIVANSHI VIVEKKUMAR	Present
26	17BT042	SONI SHIVANI SANJAYBHAI	Present
27	17BT044	SURATI HETAL NARENDRABHAI	Present
28	17BT045	VEGDA SMRUTI MANSUKHBHAI	Present
29	17BT046	MANAROLIYA APEKSHA BABULAL	Present
30	17BT047	PATEL AESHA SAMIRKUMAR	Present

Attendance

No	ID No	NAME	16/04/2019
1	17BC001	CHUDASAMA GEETA VIJAYBHAI	Present
2	17BC002	DAVE DOLLY HITENKUMAR	Present
3	17BC003	JERRY M RAJU	Present
4	17BC004	PATEL DHARABEN VISHNUBHAI	Present
5	17BC005	PATEL KASHYAP KIRTIKUMAR	Present
6	17BC008	PATEL TWINKLE NILESHKUMAR	Present
7	17BC010	SHAH SHIVANI VIPULBHAI	Present
8	17BC011	SOLANKI MEHULKUMAR SURESHBHAI	Present
9	17BC012	SONI DEVANGKUMAR KIRITBHAI	Present
10	17BC014	VOHRA ZENAB MUSTUFA	Present

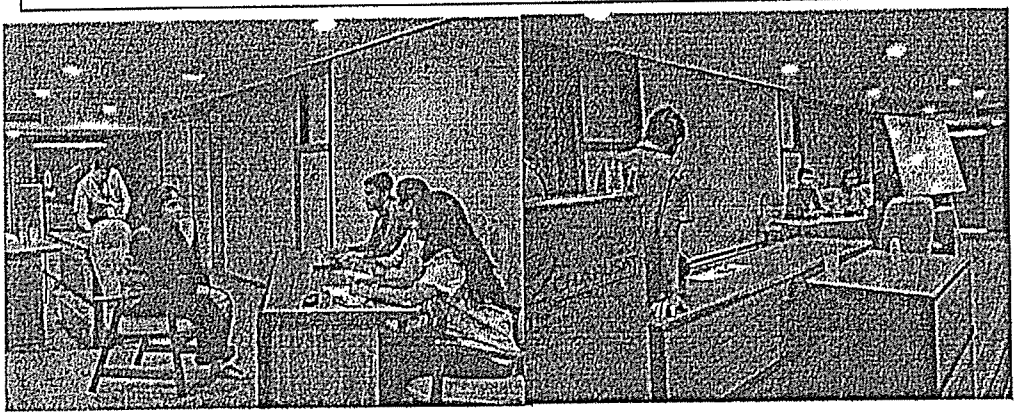
Attendance

No	ID No	NAME	16/04/2019
1	17MI001	AGHARA HIRAL MANHARLAL	Present
2	17MI002	BALDANIA ARTIBEN NARESHBHAI	Present
3	17MI003	BALDANIA MAHESH JERAMBHAI	Present
4	17MI004	BARIYA DIMPLEBEN RAJENDRASINH	Present
5	17MI005	CHAVAN ASHWINI HEMANTKUMAR	Present
6	17MI006	DALSANIA KELVI BHARATBHAI	Present
7	17MI007	DAVE PURNA UTPAL	Present
8	17MI008	DHUMMAD VAIBHAVIBAHEN PRAVINSINH	Present
9	17MI009	DONDA PURVISHA BABUBHAI	Present
10	17MI010	GOHEL KRUPABEN PRAVINSINH	Present
11	17MI011	LAKHANI HEMALI ASHOKKUMAR	Present
12	17MI012	MANGUKIA HASTI KIRITBHAI	Present
13	17MI013	MARDIYA RUBY RAMESHBHAI	Present
14	17MI014	MISTRY KRUTI JAYESHBHAI	Present
15	17MI015	PANCHAL SOHANGIBEN MUKESHKUMAR	Present
16	17MI016	PANSURIYA SAKSHI ASHVINBHAI	Present
17	17MI017	PAREKH UNNATI RASENDUHBHAI	Present
18	17MI018	PATEL AKSHITKUMAR NATVERLAL	Present
19	17MI019	PATEL BHARVI HEMANTKUMAR	Present
20	17MI020	PATEL DHRUVI KIRITBHAI	Present
21	17MI021	PATEL DRASHTIBEN MAHESHKUMAR	Present
22	17MI025	PATEL KRISHNABEN DINESHBHAI	Present
23	17MI028	PATEL NIDHI VINILKUMAR	Present
24	17MI034	PATEL VRUSIKABEN ASHOKBHAI	Present
25	17MI035	PRAJAPATI AMIBEN SATISHBHAI	Present
26	17MI036	PUNWAR PAYALKUMARI KIRANSINH	Present
27	17MI038	RAMANI CHIRAG RASIKBHAI	Present
28	17MI039	RAVAL AESHA PRAKASHBHAI	Present
29	17MI040	SHAIKH AAFRIN FIROZ	Present
30	17MI042	SHUKLA DEVANGI RAKESHKUMAR	Present
31	17MI043	SINDE HARDI PURSHOTTAM	Present
32	17MI044	VARMA AAKASH KANAIYALAL	Present
33	17MI045	VASAVA ZINAL THAKORBHAI	Present
34	17MI046	VASHI MOSMIBEN KIRITBHAI	Present
35	17MI047	VAVADIYA JIGISHABEN VINUBHAI	Present
36	17MI048	VISPUTE DIVYANI RAJESH	Present
37	17MI049	VYAS ZALAK DIPAKKUMAR	Present

Photographs of the Event



Dr.Devang Joshi, Registrar, CHARUSAT was delivering an expert session_12/4/2019



A Mock interview was scheduled for the MSc Semester 3 students (MI, BT and BC)_12/4/2019

12/4/2019

Details of resource person

Dr. Devang Joshi

Dr. Devang Joshi, Registrar, Charotar University of Science and Technology.

It is under his dynamic administration, CHARUSAT has earned A Grade in the very first NAAC Cycle

Besides, the University and affiliated Institutes have significantly progressed well during these years, as evident from very high NIRF rankings. Along with the administration, Dr. Joshi also takes keen interest in the overall development of students and teachers, with special emphasis on teaching-learning abilities, quality research outputs and better job placements of current and alumni students. Dr. Joshi is a well-known expert in Global studies, Development studies, Administration, Governance, International Development, Public Policy Analysis, Sustainable Development Strategies, Public Management and Rural Development. He is also a motivational speaker and has been instrumental in shaping the careers of many students.

CHARUSAT

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

P. D. Patel Institute of APPLIED SCIENCES

CERTIFICATE OF PARTICIPATION

This is to certify that **MAKWANA NEESHABEN PURUSHOTTAMBHAI** with Enrollment No. **15BSC022**, a student of B.Sc. Semester VI, has enthusiastically participated in Value Added Course "**Scientific Seminars**" (of more than 30 contact hours) offered by the Department of Biological Sciences, PD Patel Institute of Applied Sciences (PDPIAS), Charotar University of Science & Technology (CHARUSAT), Changa, Gujarat during the academic year 2017-18.

Dr. Aditi Buch
Course Incharge
Department of Biological Sciences,
PDPIAS, CHARUSAT

Dr. Janki N. Thakkar
Head of the Department,
Department of Biological Sciences,
PDPIAS, CHARUSAT

अमृतं तु विद्या

P.D. Patel Institute of APPLIED SCIENCES

CERTIFICATE OF COMPLETION

This is to certify that Mr./Ms. **Vrutti Panchal** has successfully completed an online summer training on **Biofertilizers: Past, Present and future**, as organized by Department of Biological Sciences, P.D. Patel Institute of Applied Sciences (PDPIAS), Charotar University of Science and Technology, Changa - 388 421 during **June 23, 2020 - July 4, 2020 (12 Days)**.

Date: July 15, 2020
Place: CHARUSAT, Changa

Dr. Anamika Jha
Course Mentor

Dr. Gayatri Dave
Associate Professor & Head,
Department of Biological Sciences,
PDPIAS

Dr. Bhavtosh Kikani
Member, CDPC

Annexure 3

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Date : 09/07/2020

P. D. PATEL INSTITUTE OF APPLIED SCIENCES

B.Sc

Syllabus Details

Effective Year 2020-21

Degree : B.SC
Total Subjects : 7
Total Regular Subjects : 2
Total Elective Subjects : 5

Semester : 5

Group Name : Core Courses

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT					TH		PR		PRJ		
		TH	PR	PRJ	TOTAL	TOTAL HOURS	Internal	External	Internal	External	Internal	External	TOTAL
BS503	BIOINFORMATICS	2.00			2.00	2.00	0/15	14/35	-	-	-	-	50
BS131.02	COMMUNICATION AND SOFT SKILLS		2.00		2.00	2.00	-	-	0/30	28/70	-	-	100
					4.00	4.00							150

Group Name : BSCSEM-5E

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT					TH		PR		PRJ		
		TH	PR	PRJ	TOTAL	TOTAL HOURS	Internal	External	Internal	External	Internal	External	TOTAL
BE510	BIOETHICS AND BIOSAFETY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
BE511	MICROBIAL ENZYMES	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
BE512	MANAGEMENT OF HUMAN MICROBIAL DISEASES	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
BE513	AGRICULTURAL BIOTECHNOLOGY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
BE514	DRUG DESIGNING	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100

Group Name : BSCMISem5Core

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT					TH		PR		PRJ		
		TH	PR	PRJ	TOTAL	TOTAL HOURS	Internal	External	Internal	External	Internal	External	TOTAL
MI505	FOOD AND DAIRY MICROBIOLOGY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
MI506	ENVIRONMENTAL MICROBIOLOGY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
MI507	PLANT PATHOLOGY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
MI508	MICROBIOLOGY LABORATORY-V		8.00		8.00	16.00	-	-	0/50	40/100	-	-	150

DEAN

Summer Training Student details (BSC sem V) Annexure 4

	2017 Training									
Sr. No.	Roll number	Student name	Branch	Semester	Place of training	Duration/ Dates	Certificate copy	Report	Renumeration/F	Industrial
12	17BSC014	HANDE ATHARVARAJ ABHAY	MI	V	CONCEPT BIOTECH	15-5-19 TO 4-6-19	YES	NO		YES
13	17TBSC025	MAHIDA HIRAL	BC	V	H M PATEL CENTR FOR MEDIACAL CARE & EDUCATION	4-6-19 TO 18-6-19	YES	NO		YES
14	17TBSC026	MAHIDA HIRAL	BC	V	AMUL DAIRY	14-5-19 TO 30-5-19	YES	NO		YES
15	17BSC095	PATEL VIDHI	BT	V	AMANTA HEALTHCARE LTD.	13-5-19 TO 27-5-19	YES	NO		YES
16	17BSC052	PATEL HARDI DILIP	MI	V	INTAS PHARMACEUTICALS LIMITED	16-5-19 TO 14-6-19	YES	NO		YES
17	17BSC019	KANSARA DHWANI HITESHBHAI	MI	V	LIFELINE LABORATORY	14-5-19 TO 8-6-19	YES	NO		YES
18	17BSC112	SONI AESHA MITALKUMAR	MI	V	LIFELINE LABORATORY	13-5-19 to 28-5-19	YES	NO		YES
19	17BSC012	GANDHI MAHIMA HIMANSHU	BT	V	ELYSIUM PHARMACEUTICAL LTD	4-5-19 TO 17-5-19	YES	NO		YES
20	17BSC013	GANDHI MAHIMA HIMANSHU	BT	V	SHALMAN PHARMACEUTICALS PVT LTD	5-6-19 TO 19-6-19	YES	NO		YES
21	17bsc086	RUTI PATEL	BC	V	UNIPATH LABORATORY	20-5-19 TO 3-6-19	YES	NO		YES
22	17BSC099	HETVI PATIL	BC	V	UNIPATH LABORATORY	20-5-19 TO 3-6-20	YES	NO		YES
23	17BSC098	ZEEL PATEL	BC	V	UNIPATH LABORATORY	20-5-19 TO 3-6-21	YES	NO		YES
24	17BSC027	SHIRSHA PATEL	BT	V	UNIPATH LABORATORY	20-5-19 TO 3-6-22	YES	NO		YES

Thakker

	2017 Training										
Sr. No.	Roll number	Student name	Branch	Semester	Place of training	Duration/ Dates	Certificate copy submitted	Report copy submitted	Renumeration/Fellowship, if any	Industrial	Research
1	15BSC106	SHAH JINAL	BT	V	NORRIS MEDICINES , ANKLESHWAR	1-7-17 TO 20-7-17	YES	NO		YES	
2	15BSC107	SHAH KRINA	BT	V	IPCA LAB, SILVASA	16-6-17 TO 3-7-17	YES	NO		YES	
3	15BSC080	PATEL REEMA	BT	V	AMUL	21-6-17 TO 30-6-17	YES	YES		YES	
4	15BSC008	DARUWALA KAINAZ	BT	V	CADILA HEALTH CARE	19-6-17 TO 2-8-17	YES	YES		YES	
5	15BSC023	MANIAR DIVIJA	BT	V	CADILA HEALTH CARE	19-6-17 TO 2-8-18	YES	YES		YES	
6	15BSC110	SHAH SHIKHA	BT	V	AMUL	21-6-17 TO 30-6-17	YES	YES		YES	
7	15BSC093	PATEL VRONIKA	BT	V	AMUL	19-6-17 TO 30-6-17	YES	YES		YES	
8	15BSC067	PATEL MONIKA	BT	V	AMUL	19-6-17 TO 30-6-18	YES	YES		YES	
9	15BSC068	PATEL NIDHI	BC	V	BIOSCIENCE DEPTMENT,S.P. UNI.	12-6-17 TO 5-7-17	YES	YES		NO	
10	15BSC123	VOHRA ZEBA	BT	V	AMUL	12-6-17 TO 8-7-17	YES	YES		YES	
11	15BSC122	VOHRA MUSKAN	BT	V	AMUL	12-6-17 TO 8-7-18	YES	YES		YES	
12	15BSC065	PATEL MARGI	BT	V	AMUL	12-6-17 TO 8-7-19	YES	YES		YES	
13	15BSC015	GHOSH SNEHA	BC	V	JIWAJI UNIVERSITY GWALIOR	15-6-17 TO 12-8-17	YES	YES		NO	Yes



Annexure 5

Date : 02/10/2017

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

P. D. PATEL INSTITUTE OF APPLIED SCIENCES

MASTER OF SCIENCE

Syllabus Details

Effective Year 2017-18

Semester : 1

Degree : M. Sc. (AOC)
Total Subjects : 8
Total Regular Subjects : 7
Total Elective Subjects : 1

Group Name : HSS-AOC-I

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOUR	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
HS703.01 E	LANGUAGES (FRENCH)		2.00		2.00	2.00	-	-	0/30	28/70	-	-	100
HS704 E	ACADEMIC SPEAKING		2.00		2.00	2.00	-	-	0/30	28/70	-	-	100
HS701 E	ADVANCE CRITICAL THINKING AND LOGIC	2.00			2.00	2.00	0/30	28/70	-	-	-	-	100

Total Credit for Regular Subjects	:	23.00
Total Credit for Elective Subjects	:	4.00
Total Credit	:	27.00

Examination Grade Range & Value

Grade	Grade Points	From Marks	To Marks
AA	10.00	80	100
AB	9.00	75	79
BB	8.00	70	74
BC	7.00	65	69
CC	6.00	60	64
CD	5.00	55	59
DD	4.00	50	54
FF	0.00	0	49

Annexure 6

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Date : 02/10/2017

P. D. PATEL INSTITUTE OF APPLIED SCIENCES

B.Sc

Syllabus Details

Effective Year 2017-18

Degree : B.SC
Total Subjects : 25
Total Regular Subjects : 3
Total Elective Subjects : 22

Semester : 6

Group Name : Elective sem 6

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOUR	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
BE601	FOOD AND DAIRY BIOTECHNOLOGY	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50
BE602	PHARMACEUTICAL QUALITY CONTROL AND QUALITY ASSURANCE	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50
BE603	BIOSAFETY AND BIOETHICS	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50
BE604	FUNDAMENTALS OF OMICS TECHNOLOGIES	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50
BE605	MICROBIAL TECHNOLOGY BASED ENTREPRENEURSHIP	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50
BE606	BASIC ANIMAL CELL CULTURE TECHNIQUES	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50
BE607	BASIC FORENSIC BIOTECHNOLOGY	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50

Group Name : Core Courses

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOUR	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
BS601	BIOINFORMATICS	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50
BS602	SEMINAR	2.00			2.00	2.00	-	-	-	-	-	-	

Group Name : BT-MI-6

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOUR	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
MI601	FERMENTATION TECHNOLOGY	2.00			2.00	2.00	0/15	0/35	-	-	-	-	50

P D Patel Institute of Applied Sciences (2017-2018)

Curriculum feedback analysis and action taken report

Sr. No.	Stakeholder	Feedback	Action Taken
1	Industry experts	Students should be aware on current industrial technologies and updates	Various subjects are already included in Syllabus to make students aware about Industrial technologies and study tour at Savli Biotech Incubator was also arranged (Teaching scheme highlighting industrial technology oriented subjects and report of industrial tour is attached – Annexure 1)
2	Employers	Students need to be trained for basic etiquettes for personal interview and profession relations. Quality of fundamental concepts need to be improved	Subjects like academic speaking were included and Guidance provided through special classes on T & P and students were encouraged to use online platform like NPTEL to improve basics (Teaching scheme and certificates of NPTEL attached- Annexure 2)
3	Academic Peers	Technical paper writing guidance required	Guidance provided on technical paper writing during dissertation.(Copy of one paper is attached – Annexure 3).
4	CHARUSAT teachers	Vacation internship must be encouraged among students	Encouraged students to take internship in different industries (List attached- Annexure 4)
5	Alumni	Industry oriented experiments should be included in curriculum	Innovation knowledge sharing with students. (List of Practicals attached –Annexure 5)
6	Parents	Improvement required in communication skill and personality development	Special sessions were provided or communication skill by humanities department (Annexure 2)
7	Present students	Library should be enriched with reference books	New reference books were purchased for library (List of books purchased attached Annexure 6)

P.D. PATEL INSTITUTE OF APPLIED SCIENCES CHARUSAT

Annexure I

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Date : 02/10/2017

P. D. PATEL INSTITUTE OF APPLIED SCIENCES
MASTER OF SCIENCE

Syllabus Details

Effective Year 2017-18

Degree : M.Sc. (MI)
Total Subjects : 5
Total Regular Subjects : 3
Total Elective Subjects : 2

Semester : 4

Group Name : Regular

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOUR	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
MS851	RESEARCH METHODOLOGY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
MI851	DISSERTATION PROJECT		12.00		12.00	20.00	-	-	0/100	100/250	-	-	350
MS852	RESEARCH PROJECT PROPOSAL		4.00		4.00	0.00	-	-	-	0/50	-	-	50
					19.00	23.00							500

Group Name : Elective-III

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOUR	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
MI852	QUALITY CONTROL AND ASSURANCE	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
MI853	INDUSTRIAL WASTE TREATMENT	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
MI854	MICROBIOLOGY BASED ENTREPRENEURSHIP	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100

Total Credit for Regular Subjects : 19.00

Total Credit for Elective Subjects : 6.00

Total Credit : 25.00

Examination Grade Range & Value

Grade	Grade Points	From Marks	To Marks
AA	10.00	80	100
AB	9.00	75	79
BB	8.00	70	74
BC	7.00	65	69
CC	6.00	60	64
CD	5.00	55	59
DD	4.00	50	54
FF	0.00	0	49

Report — B Sc Semester-V Industrial Tour

25th October, 2018

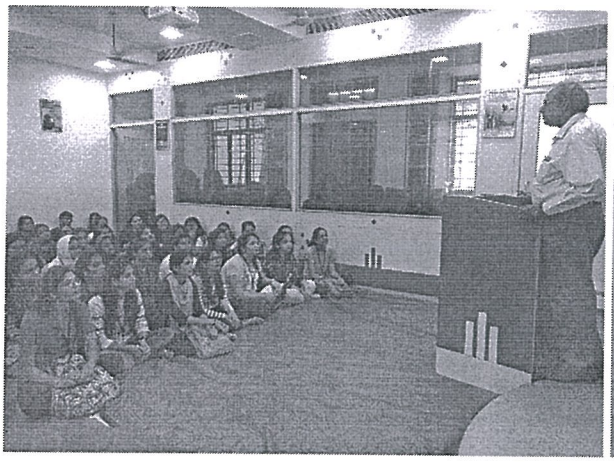
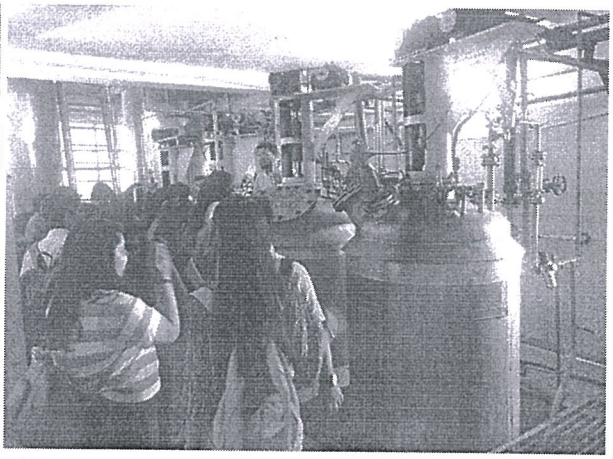
Presented by: Dr Aditi Buch
Coordinator (T.Y BSc)
PDPIAS, CHARUSAT

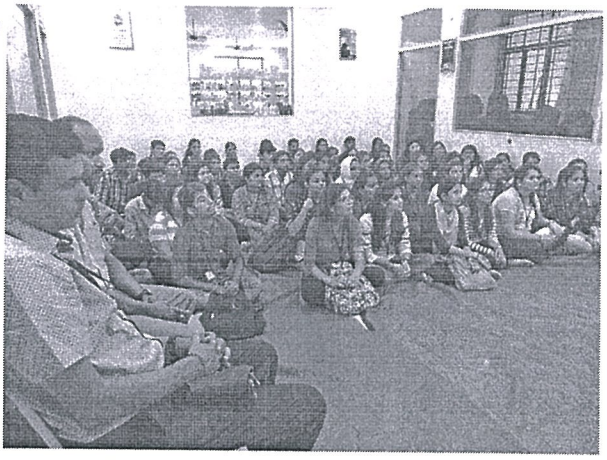
Date:	**25th October, 2018 (Thursday)**	
Venue:	**Agriland Biotech Limited, 36, Prince Industrial Estate, Mota Moti Pura, Kareli Baug, Vadodara, Gujarat 390018**	
Motive of Visit:	To expose students to the on-field application and magnitude of various bioprocesses that they learn in theory	
Relation with curriculum	BE509 Industrial Tour (as per teaching scheme)	
Members participating	**Students**	110 B Sc Semester V Students (as per list attached)
	Teaching Staff	Dr Aditi Buch Dr Bragadish Iyer Dr Gayatri Dave Dr Bhavtosh Kikani Dr Murali Sharaff
	Non-teaching staff	Mr Ghanshyambhai Patel

Nature of Activities Undertaken

1. Tour commenced at 9:30 a.m from CHARUSAT campus. Dr Gayatri Dave and Dr Bhavtosh Kikani coordinated the assembly and boarding of 98 students from the campus. Two buses were deputed by CHARUSAT for the tour. Dr Aditi Buch and Dr Bragadish Iyer along with 12 other students joined from Baroda.
2. The visit was scheduled at 11:30 at Agriland Biotech Limited. Faculties met the industry heads and representatives for exchange of pleasantries and for discussing further scope of association at various levels. Meanwhile the industry hosts extended kind hospitality by arranging snacks for the visiting students. Subsequently students and faculties were divided into two groups. One group was given a talk about the industry set-up, products and their scopes while the other group was made to visit the fermentation plant and packaging unit; and then the groups were rotated. Extremely detailed, patient demonstration and explanation at every stage enabled students to understand the industrial scale production of several microbial products in a satisfactory way. The demonstration ended at 2:30 p.m. which was followed by a group photograph at the venue.
3. Subsequently, we headed to the highway Hotel Way Wait where lunch for the visitors was pre-booked. The tour culminated post lunch at 3:30 p.m. followed by immediate return journey. Students reached CHARUSAT campus at 6:00 p.m in the evening and their safe reach to their destinations was ensured by accompanying faculties through constant follow-ups.
4. Tour was coordinated overall by Dr Aditi Buch while Dr Bragadish Iyer had coordinated the communications with the Industry partners. Dr Gayatri Dave, Dr Bhavtosh Kikani, Dr Murali Sharaff and two student representatives coordinated the related logistics throughout the tour.

Glimpses



Feedback	Students found the industrial tour worth an experience. The purpose of the industrial visit was met satisfactorily.
Output	Personal interactions with representatives of Agriland Biotech Pvt. Ltd. followed by their interaction with the students generated a significant goodwill, based on which they have expressed their willingness to train our selected students as well as have projected a scope to aid placement for our deserving students. The visit was fruitful in the sense that, it strengthened our alumni interactions. Mr Mirag Mangukiya, ex-student of PDPIAS (MSc Microbiology) is associated with this company and he played an instrumental role in arranging the tour. He as well as the superior authorities of the company also have agreed in principle to visit the institute to share their experiences with the ongoing batch of students.
Remarks	Organization of the tour was undertaken after due approvals from the University.

F.Y. BSc Coordinator

Statement of expenditure

B Sc Semester-V Industrial Tour

25th October, 2018 (Thursday)

Agriland Biotech Limited, 36, Prince Industrial Estate, Mota Moti Pura, Kareli Baug, Vadodara, Gujarat 390018

Sr No	Item	Expense incurred (Rs)	Remark
A	**Expenses from advance amount**		
1	Lunch arrangements (120 px)	12,523.00	Bill attached
2	Toll tax (for 2 buses)	1130.00	Receipts attached
3	Miscellaneous	320	
	Total expenditure	**13,973.00**	
	Advance amount taken	**19,000.00**	
	Balance amount to be refunded	**5027.00**	
B	**Travel expenses (2 buses as deputed by CHARUSAT)**	As per CHARUSAT norms.	

7.4.18 Coordinator

Statement of expenditure

B Sc Semester-V Industrial Tour

09th November, 2017

Bills Biotech Pvt Ltd, Savli Biotech Park and Savli Biotech Incubator

Sr No	Item	Expense incurred (Rs)	Remark
A	**Expenses from advance amount**		
1	Lunch arrangements (110 px)	8,800.00	Bill attached
2	Token amount donated to Shri Bhimnath Mahadev Seva Samaj, Savli, on behalf of CHARUSAT	500.00	Expression of gratitude towards access to temple premise for lunch arrangements, receipt attached
3	Arrangement for evening refreshments for students and staff	2545.00	Bill not available since purchased from small highway joints
4	Toll tax (for 2 buses)	1020.00	Receipts attached
	Total expenditure	**12,865.00**	
	Advance amount taken	**18,000.00**	
	Balance amount to be refunded	**5135.00**	
B	**Travel expenses (2 buses hired from Brahmani Travels)**	16,000.00	Bill already processed for payment by Mr Rakesh Dave
	Overall expenditure of the Tour (A+B)	**28,865.00**	

C.U. Shah, BSc coordinator

Annexure 2

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Date : 09/07/2021

P. D. PATEL INSTITUTE OF APPLIED SCIENCES

MASTER OF SCIENCE

Syllabus Details

Effective Year 2019-20

Program : M.Sc. (BC)
Total Subjects : 9
Total Regular Subjects : 6
Total Elective Subjects : 3

Semester : 1

Group Name : HSS-BC-I

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOURS	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	Externa	
HS703.01 E	LANGUAGES (FRENCH)		2.00		2.00	2.00	-	-	0/30	28/70	-	-	100
HS704 E	ACADEMIC SPEAKING		2.00		2.00	2.00	-	-	0/30	28/70	-	-	100

Total Credit for Regular Subjects	:	22.00
Total Credit for Elective Subjects	:	4.00
Total Credit	:	26.00

Examination Grade Range & Value

Grade	Grade Points	From Marks	To Marks
AA	10.00	80	100
AB	9.00	75	79
BB	8.00	70	74
BC	7.00	65	69
CC	6.00	60	64
CD	5.00	55	59
DD	4.00	50	54
FF	0.00	0	49

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

ISHA RAJUBHAI PATEL

for successfully completing the course

Wildlife Ecology

with a consolidated score of **91** %

Online Assignments	19.06/25	Proctored Exam	72/75

Total number of candidates certified in this course: **543**

Prof. Rajesh M.Hegde
Chairman, Centre for Continuing Education
IIT Kanpur

Sep-Dec 2020
(12 week course)

Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

Indian Institute of Technology Kanpur

swayam

Roll No: NPTEL20BT38S82350057

To validate and check scores: https://nptel.ac.in/noc

This certificate is computer generated and can be verified by scanning the QR code given below. This will display the certificate from the NPTEL repository, https://nptel.ac.in/noc/

Roll No: NPTEL20BT32S51090021

To
VOHRA AQSA G
M-6, FAZAL APPT.,
MUGLISARA MAIN ROAD, SURAT.
SURAT
GUJARAT - 395003
PH. NO :6356004616

Score	Type of Certificate
>=90	Elite+Gold
75-89	Elite+Silver
>=60	Elite
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL:3
An additional 1 credit may be awarded if the University deems it fit, based on the actual student effort involved.

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

VOHRA AQSA G

for successfully completing the course

Genetic Engineering: Theory and Application

with a consolidated score of 78 %

Online Assignments	22.69/25	Proctored Exam	55.5/75

Total number of candidates certified in this course: 342

Sep-Dec 2020
(12 week course)

Prof. Hemant B Kaushik
Head, Centre for Educational Technology
& NPTEL Coordinator
IIT Guwahati

Indian Institute of Technology Guwahati

swayam

Roll No: NPTEL20BT32S51090021

To validate and check scores: https://nptel.ac.in/noc

This certificate is computer generated and can be verified by scanning the QR code given below. This will display the certificate from the NPTEL repository, https://nptel.ac.in/noc/

Roll No: NPTEL20BT29S62470027

To
AMATULLA SADABAR
OPP. TO JAIN NASHIYA ,SILVER AUTO PARTS
, 4TH FLOOR , STATION ROAD
STATION ROAD , DAHOD
DAHOD
GUJARAT - 389151
PH. NO :6354967353

Score	Type of Certificate
>=90	Elite+Gold
75-89	Elite+Silver
>=60	Elite
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL:1
An additional 1 credit may be awarded if the University deems it fit, based on the actual student effort involved.

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

AMATULLA SADABAR

for successfully completing the course

Biomedical Nanotechnology

with a consolidated score of 62 %

Online Assignments	22.50/25	Proctored Exam	39.75/75

Total number of candidates certified in this course: 733

Prof. V. C. Srivastava
Coordinator, Continuing Education Centre
IIT Roorkee

Sep-Oct 2020
(4 week course)

Prof. Inderdeep Singh
NPTEL Coordinator
IIT Roorkee

Indian Institute of Technology Roorkee

swayam

Annexure 3

(37)

Bioresource Technology 332 (2021) 125088

Contents lists available at ScienceDirect

Bioresource Technology

journal homepage: www.elsevier.com/locate/biortech

Electroactive bacterial community augmentation enhances the performance of a pilot scale constructed wetland microbial fuel cell for treatment of textile dye wastewater

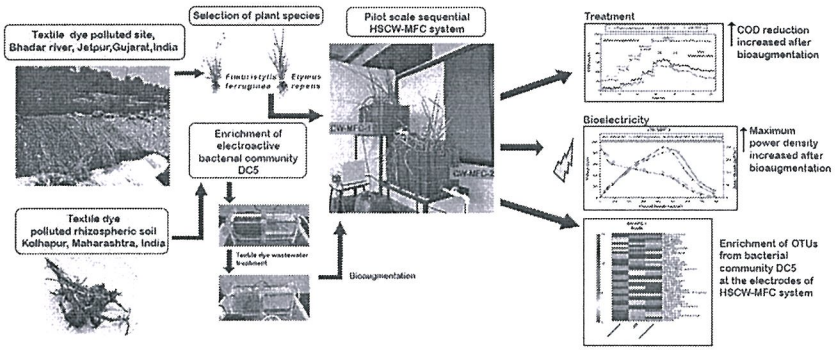
Dishant Patel, Sweta L. Bapodra, Datta Madamwar, Chirayu Desai *

P. D. Patel Institute of Applied Sciences, Charotar University of Science and Technology, CHARUSAT Campus, Changa 388 421, Anand, Gujarat, India

HIGHLIGHTS

- Electroactive and textile dye wastewater degrading bacterial community was developed.
- A pilot scale CW-MFC system was engineered for treatment of textile dye wastewater.
- Performance of CW-MFC system increased after bioaugmentation of community DC5.
- Microbial community dynamics was observed at different influent COD of dye wastewater.
- The genus *Exiguobacterium* was abundant at the anodes of DC5 augmented CW-MFC system.

GRAPHICAL ABSTRACT



ARTICLE INFO

Keywords:
Textile dye wastewater
Electroactive bacterial community
Bioaugmentation
Exiguobacterium
Desulfovibrio

ABSTRACT

This study evaluated the effect of bioaugmentation of a newly enriched electroactive bacterial community DC5 on the performance of a pilot scale sequential two-step Horizontal Sub-surface flow Constructed Wetland-Microbial Fuel Cell (HSCW-MFC) system treating textile dye wastewater. The system consisted of CW-MFC-1 planted with *Fimbristylis ferruginea* and CW-MFC-2 planted with consortium of *Fimbristylis ferruginea* and *Elymus repens* plant species. Before bioaugmentation, HSCW-MFC system showed 62 ± 2% Chemical Oxygen Demand (COD) and 90 ± 1.5% American Dye Manufacturer's Institute (ADMI) removal and 177.3 mW/m^2 maximum power density (CW-MFC-1). After bioaugmentation of DC5 into the HSCW-MFC, COD and ADMI removal was enhanced to 74.10 ± 1.75% and 97.32 ± 1.90% with maximum power density of 197.94 mW/m^2 (CW-MFC-1). The genera *Exiguobacterium*, *Desulfovibrio* and *Macellibacteroides* of DC5 were significantly enriched at the electrodes of HSCW-MFC after bioaugmentation. These results demonstrate that the performance of the CW-MFC treating textile dye wastewater can be improved by bioaugmentation of electroactive bacterial community.

* Corresponding author.
E-mail address: chirayudesai.bt@charusat.ac.in (C. Desai).

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Received 31 January 2021; Received in revised form 23 March 2021; Accepted 25 March 2021
Available online 1 April 2021
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Summer Training BSC Semester IV

Annexure 4

2018 Training

Sr. No.	Roll number	Student name	Branch	Semester	Place of training	Duration and dates , Year	Certificate copy submitted	Report copy submitted	eration/Fellowship
1	16BSC065	ISHA M PATEL	MICROBIOLOGY	IV	DUDHDHARA DAIRY	1ST JUNE 2018 TO 15TH JUNE 2018	YES	YES	
2	16BSC071	KRISHNA K PATEL	BIOTECHNOLOGY	IV	ASOJ SOFT CAPS PVT.LTD.	21ST MAY 2018 TO 06TH JUNE 2018	YES	YES	
3	16BSC002	RUCHI ATODARIYA	BIOTECHNOLOGY	IV	INTAS PHARMACEUTICALS LIMITED	7TH JUNE 2018 TO 21ST JUNE 2018	YES		
4	16BSC127	JOLLY V UPADHYAY	BIOTECHNOLOGY	IV	KAIRA DISTRICT CO-OPERATIVE MILK	7TH JUNE 2018 TO 21ST JUNE 2018	YES		
5	16BSC125	DHRUVA TRIVEDI	BIOTECHNOLOGY	IV	THE GUJARAT CANCER & RESEARCH	1ST JUNE 2018 TO 15TH JUNE 2018	YES		
6	16BSC055	DEVANGI PATEL	BIOTECHNOLOGY	IV	KAIRA DISTRICT CO-OPERATIVE MILK	15 DAYS	YES		
7	16BSC044	ARTH PARIKH	BIOTECHNOLOGY	IV	M.S UNIVERSITY AMI PROCURE, SURAT	2ND JUNE 2018 TO 29TH JUNE 2018			
8	16BSC027	JINAL KAPDIYA	BIOTECHNOLOGY	IV	ARIHANT CHEMICAL INDUSTRIES, ANKLESHWAR	15 DAYS	YES	YES	
9	16BSC056	DRASHTI D PATEL	MICROBIOLOGY	IV	GNFC	1ST JUNE 2018 TO 15TH JUNE 2018	YES	YES	

Annexure 5

(5)

a

MSc Sem III

	BIOTECHNOLOGY
	BT822 Industrial Biotechnology
1	Autoclave validation
2	Validation of product
3	Biofertilizer preparation
4	Effectiveness of various chemicals in cleaning lab bench
5	Monitoring the Effectiveness of LAFU
6	Effectiveness of various chemiicals in cleaning hands
7	MIcrobial pigment production
8	Effect of Fumigation
9	Citric acid production /Antibiotic production
10	Study of probiotic organisms

(1)15

B.Sc III

	BT 301 Enzyme Technology
	Enzyme activity
43	Measure of enzyme activity
44	Effect of substrate concentration
45	Effect of pH
46	Effect of temperature
47	Enzyme activity using commercialy available enzymes (products)
48	Enzyme immobilization-Alginate beads

PDPIAS Library Books procured.

Annexure 6

2018-19					
Bill no	**Dep**	**Date**	**Qty**	**Cost**	**Acc No**
1	Bio	4/5/2018	26	12360	3200-3225
5	AOC	4/12/2018	6	2250	3226-3231
13325	MATH	4/16/2018	10	7440	3232-3241
Project		24-4-018	8	0	3242-3249
40	Phy	14-6-018	2	2990	3250-3251
49	Bio	26-6-018	52	140683.1	3252-3304
50	Bio	26-6-018	12	5390	3305-3316
53	MATH	26-6-018	18	13950	3317-3334
57120	MATH	25-6-018	26	15864	3335-3360
55	Bio	3-7-018	10	34562.61	3361-3370
59	Bio	9-7-018	10	25225	3371-3380
64	MATH	10-7-018	10	3120	3381-3390
65	Bio	11-7-018	8	24060	3391-3398
68	MATH	13-7-018	11	3250	3399-3409
70	Bio	14-7-018	20	27900	3410-3429
13653	MATH	30-7018	2	5787.35	3430-3431
153	Bio	11-8-018	20	9500	3432-3451
156	MATH	11-8-018	8	6662	3452-3459
155	Bio	11-8-018	9	8001	3460-3468
179	MATH	8/31/2018	15	5125	3469-3483
180	Bio	8/31/2018	7	2765	3484-3490
181	Phy	8/31/2018	33	10835	3491-3523
13780	Project	11-9-018	3	0	3524-3526
13688	Project	13-8-018	1	0	3527
321	Phy	9/24/2018	20	10550	3528-3547
322	MATH	9/24/2018	15	10495	3548-3562
323	Bio	9/24/2018	22	5870	3563-3584
SPECUAL COLLECTION		2/3/2018	6	0	3585-3590
	Project		1	0	3591
341	Bio	16-10-018	5	2775	3592-3596
342	MATH	16-10-018	6	3582	3597-3602
351	Bio	27-10-018	20	19980	3603-3622
352	Phy	27-10-018	15	11625	3623-3637
355	Bio	10/31/2018	10	5250	3638-3647
356	MATH	10/31/2018	5	1500	3648-3652
10497	Bio	07-01-019	27	113938.66	3653-3679
10498	Bio	07-01-019	14	105507.22	3680-3693
57659	Bio	16-01-019	20	59500	3694-3713
729	Bio	28-12-019	10	38200	3714-3723
947	Bio	04-02-019	5	9519	3724-3728
57747	Bio	05-02-019	5	6475	3729-3733
482	Bio	06-02-019	5	2375	3734-3738
10661	Project	08-02-019	2	0	3439-3740
499	Bio	14-02-019	5	4625	3741-3745
970	Bio	20-02-019	21	19724	3746-3766

10822	Project	13-03-019	3	0	3767-3769
			569	799210.94	

2018-2019

P D Patel Institute of Applied Sciences

Curriculum feedback analysis and action taken report

Sr. No.	Stakeholder	Feedback	Action Taken
1	Industry experts	Students should be aware on current industrial technologies and updates	Industrial expert lectures were arranged (Annexure 1)
2	Employers	Students need to be train for basic etiquettes for personal interview and profession relation Quality of fundamental concepts need to be improved	Industry expert came and addressed on role of skills in employability. To Improve the concepts students were encouraged to take NPTEL courses (Annexure 2)
3	Academic Peers	Technical paper writing guidance required	Guidance provided on technical paper writing during dissertation. Sample paper copy attached (Annexure 3)
4	CHARUSAT teachers	Vacation internship must be encouraged among students	Encouraged students to take internship (Annexure 4)
5	Alumni	Industry oriented experiments should be included in curriculum	List of experiments related to industry are attached (Annexure 5)
6	Parents	Improvement required in communication skill and personality development	Special sessions were provided on communication skill by humanities department (Annexure 6)
7	Present students	1. Curriculum should included the list of practical 2. Library should be enriched with reference books	List of the practical was provided before the commencement of semester and new reference books were purchased for library (Annexure 7)

P.D. PATEL INSTITUTE OF APPLIED SCIENCES
CHARUSAT

CHARUSAT

Janki Thakker <jankithakker.bt@charusat.ac.in>

Invitation for : A talk on "How to start a “startup” with special reference ....." on March 1st, 2019

1 message

Principal PDPIAS CHARUSAT <principal.pdpias@charusat.ac.in>
To: Charusat Family <charusatfamily@charusat.ac.in>

Tue, Feb 26, 2019 at 2:55 PM

Dear CHARUSAT Family Members

Annexure I

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

P. D. Patel Institute of Applied Sciences

&

Entrepreneurship Development & Incubation Center

(EDIC)

Jointly organizes

A talk on

"How to start a "startup" with special reference to Entrepreneurship, Novel Biologics and Nanotechnology based products"



Eminent Speaker

Dr. C N Ramchand

CEO, Saksin lifesciences Pvt. Ltd. Chennai & San Francisco CEO,
MagGenome technologies Pvt. Ltd., Cochin, Kerala

Date: 1st March 2019, Friday
Time: 10.15 am to 12.15 pm (with 10 minutes break)
Venue: Conference Hall, P D Patel Institute of Applied Sciences

Interested students, research scholars and faculty members are invited

Coordinated by : Dr. Rucha Desai, Assistant Professor, PDPIAS
ruchadesai.neno@charusat.ac.in

The abstract and short CV is attached herewith.

We cordially invite all the interested faculty members, research scholars and students for the same.

With Regards

Dr Ramesh V Upadhyay
Professor of Physics,
Dean Applied Sciences, Charotar University of Science and Technology,
CHARUSAT campus, Changa 388421, Gujarat, India

Accredited Grade 'A' by NAAC & KCG
Mobile: 09427215242, Contact: 02697-265091
e-mail: dean.fas@cahrusat.ac.in : rvu.as@charusat.ac.in
www.charusat.ac.in

Dr. CN Ramchand CHARUSAT abstract and Short CV-final 3.pdf
149K

CHARUSAT

Janki Thakker <jankithakker.bt@charusat.ac.in>

Shree Pramukh Swami Maharaj Endowment Chair Activity @ PDPIAS - 26th April 2021

1 message

Principal PDPIAS CHARUSAT <principal.pdpias@charusat.ac.in>
To: Charusat Family <charusatfamily@charusat.ac.in>, Narottam Sahoo <narottam.sahoo@gmail.com>, Chaitanya Joshi <cgjoshi@aau.in>, avrcn@rediffmail.com, mdbtm@gujarat.gov.in, jdbdbtm@gujarat.gov.in, pngajjar@rediffmail.com, skannan@csmc drnkj11@gmail.com, Vijay Thiruvenkatam <vijay@iitgn.ac.in>, kirankalia@gmail.com, Ramchand CN <cnramchand@gmail.com>, H T Patel <htpatel2004@gmail.com>, Sivapriya Kirubakaran <priyak@iitgn.ac.in>, balaji.prakash@ahduni.edu.in, vasuthakkar@gmail.com, "R.B Subramanian" <subramanianrb@gmail.com>, vihasv@gmail.com, amita@jcbose.ac.in, gnaresh_k@yahoo.co.in, raktimmukherjee2003@yahoo.co.in, ashish.bhattacharjee@bt.nitdgp.ac.in, ashutoshk@iitb.ac.in, Sriram Sesh <sriram.seshadri@nirmauni.ac.in>, shivsarin@gmail.com, Debashree Bandyopadhyay <banerjee.debi@hyderabad.bits-pilani.ac.in>, suvendra@iicb.res.in, saritagupta9@gmail.com, Digvijaysinh Rana <digvijaysinhrana@aribas.edu.in>, kinnarimistry@arib sarat.dalai@nirmauni.ac.in

Mon, Apr 26, 2021

Dear Sir/ Madam,

Greetings!

P. D. Patel Institute of Applied Sciences, CHARUSAT is pleased to announce Shree Pramukh Swami Maharaj Endowment Chair Activity during April-May 2021. Total six lectures delivered by highly reputed and internationally acclaimed speakers as per the given schedule.

Date and Day	Time	Name and affiliation of Endowed Chair Professors	Title of talk
16th April, 2021 Friday	09.30 am to 11.00 am	**Prof. Subeer Majumdar**, Director, National Institute of Animal Biotechnology, Hyderabad	Modern day biotechnology for societal bene
22nd April, 2021 Thursday	3.30 pm to 05.00 pm	**Prof. Deepak Dhar**, Emeritus Professor, Indian Institute of Science Education and Research (IISER), Pune	Modelling proportionate growth
23rd April, 2021 Friday	02.00 pm to 03.30 pm	**Prof. Vivek Polshettiwar**, FRSC, FMASc, FNASc, Associate Professor, Department of Chemical Sciences, Tata Institute of Fundamental Research (TIFR), Mumbai	Climate Change on Earth and Nanotechnolo
24th April, 2021 Saturday	11.00 am to 12.30 pm	**Prof. T. P. Singh**, SERB Distinguished Fellow, All India Institute of Medical Sciences (AIIMS), New Delhi	"Using Oral IODIDE in the prevention of COVID-1 infections by exploiting the innate immune action c mammalian heme lactoperoxidase"
26th April, 2021 Monday	**11.00 am to 12.30 pm**	**Prof. Sudhir Sopory, Emeritus Senior Scientist, International Centre for Genetic Engineering and Biotechnology, New Delhi**	**Omics role in plant biotechnolog**
4th May, 2021 Tuesday	11.00 am to 12.30 pm	**Prof. Gautam Desiraju**, Honorary Professor, Solid State and Structural Chemistry Unit, Indian Institute of Science (IISc), Bangalore	Enhancement of physicochemical properties of dr solid forms with crystal engineering

The Target audience of the lecture series includes PhD scholars, faculty members and students of CHARUSAT.

Faculty of Science | P D Patel Institute of Applied Sciences

CHARUSAT
Accredited with "Grade A" by NAAC
Accredited with "Grade A" by KCG

Shree Pramukh Swami Maharaj Endowment Chair Activity

Lecture Series April-May 2021

Chair Professor



Prof. Sudhir Sopory
Emeritus Senior Scientist, International Centre for Genetic Engineering and Biotechnology, New Delhi

Brief Overview:

BSc (Hons), MSc: Jammu and Kashmir University, India
Ph D: University of Delhi, India

Area of Specialization: Molecular plant physiology
Research Focus: Mechanisms of abiotic stress tolerance in plants, role of different genes and more specifically the glyoxalase pathway in stress tolerance, molecular basis of stress priming mediated responses and stress memory

Awards and Fellowships
1. Padma shri, Govt. of India-2007
1. Fellow: The National Academy of Sciences
2. Fellow: The Indian National Science Academy
3. Fellow: The Indian Academy of Sciences

Positions held
1. Vice chancellor, Jawaharlal Nehru University
2. Director, ICGEB, New Delhi, India

Details: https://www.icgeb.org/sudhir-k-sopory/

Lecture -5
26 April, 2021
11:00 a.m. to 12:30 p.m.

Title of the talk:

Omica approaches in plant biotechnology: towards developing tolerance to abiotic stresses

Zoom Link:

https://zoom.us/j/99913256750?pwd=UVhVSjU5bmQwdU8ybUFKTmhYNS9rZz09
Passcode: 89iQ7C

Coordinators: Dr Aditi Buch
Dr Abhishek Dadhania

Advisors
Dr. R. M. Patel
Dr. Palash Mandal
Dr. Datta Madamwar
Dr. C. K. Sumesh

Please click the link below to join the webinar:
https://zoom.us/j/99913256750?pwd=UVhVSjU5bmQwdU8ybUFKTmhYNS9rZz09
Passcode: 89iQ7C

Thanks & Regards,

Prof. Palash Mandal

Professor, Department of Biological Sciences

Principal In Charge, P. D. Patel Institute of Applied Sciences (PDPIAS)

Email: palashmandal.bio@charusat.ac.in; principal.pdpias@charusat.ac.in

Web: https:https://charusat.irins.org/profile/154244

CHARUSAT campus, Changa 388421, Gujarat, India

Accredited Grade 'A' by NAAC & KCG

Mobile: 9666164654, Contact: 02697-265191, Fax: +9102697247100

PDPIAS_Endowment Chair_lecture 5.pdf
532K

Annexure 2

NOTICE

Equal Opportunity cell (PDPIAS)

As part of Equal opportunity cell we have arranged an expert talk on "Role of skills in employability"

Details of the Expert lecture are as follows

Date of event	5th March, 2020 (Thursday)
Time/duration of event	10.15 am – 11.15 am
Name of event	Role of skills in employability (with special emphasize on Biological Sciences)
Venue	PDPIAS Conference Hall
Name of Resource person	Dr. Anjali Bose, Assistant manager, Zytex Biotech Private ltd, Baroda.

For registration, EOC coordinators are requested to send the names of interested students to jankithakker.bt@charusat.ac.in

Janki N Thakker

(EOC coordinator, PDPIAS)

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY (CHARUSAT), CHANGA – 388 421

EQUAL OPPORTUNITY CELL

Event Report

Name of Department: PDPIAS

Name of Event : Role of skills in employability

Date and Time of Event : 5th March 2020, 10.15 to 12.15 pm

Event coordinator : Dr. Janki N. Thakker

Resource person details:

Sr. No.	Name of the resource person	Organization of resource person
1	Dr. Anjali Bose	Assistant manager Strain Management Zytex Biotech PVt Ltd Vadodara

Event Schedule:

Date	Time	Session	Activity
05/03/2020	10.15 am – 12.15 pm	one	Expert Talk

Summary of the Event :

Dr. Janki Thakker introduced Dr. Anjali Bose and her HR team to M.Sc. Sem IV and Sem II Biological Sciences students

Dr. Anjali has done her Ph.D. in Microbiology and Post doctorate from Hyderabad University in Plant pathology

She had 5 years of experience in industry and is also involved in placement at Zytex for Microbiology section

Dr. Anjali started about the general skills required for the students to get placed and what an employee look in the candidate.

She explained about the techniques to be known for good opportunities in research and industry

She told about the attitude to be inculcated by the students during their masters and in an industry

She discussed about the failures and success are the part and everything leads to development

After that they took the interview of the interested candidate as Dr. Thakker discussed earlier if they need the candidates and they agreed for Campus on the day of the talk

Dr. Anjali gave brief about the company and HR Mr. Rajeev explained what quality they look when they hire any candidate.

After exam and interview two students were Ms Meera from Micro and Ms. Shivani from Biotech were selected and offer letter was received on June 27th, 2020

After analysis of feedback forms, it indicated that

- They found relevant to their needs most extend and some of them found very relevant
- Students also found the facilitator very enthusiastic, with good communications skills, timely managed. Most of them found these qualities excellent
- Students rated the overall program excellent and were motivated

Lot of students were interested and motivated to opt of career in education sector

Registration fee (if any): NA

List of Participants: Details as per entered in Registration form is submitted to EOC coordinator

Number of male students participated in activity: 10

Number of female students participated in activity: 85

Number of teaching staff participated in activity: 1

Number of non- teaching staff participated in activity: 0

Organizing body: PDPIAS & EOC

Collaborating agency (If any): NA

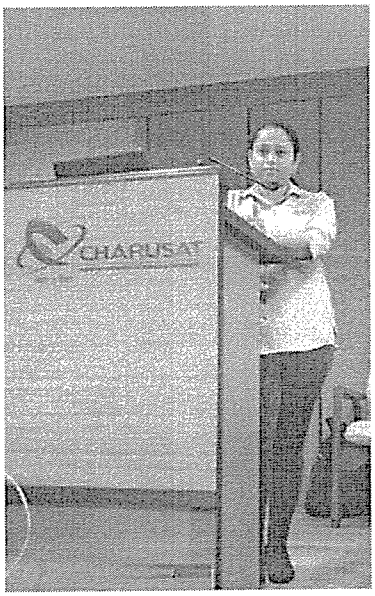
Name of the scheme (If any): NA

Total Budget sanctioned for the activity: NA

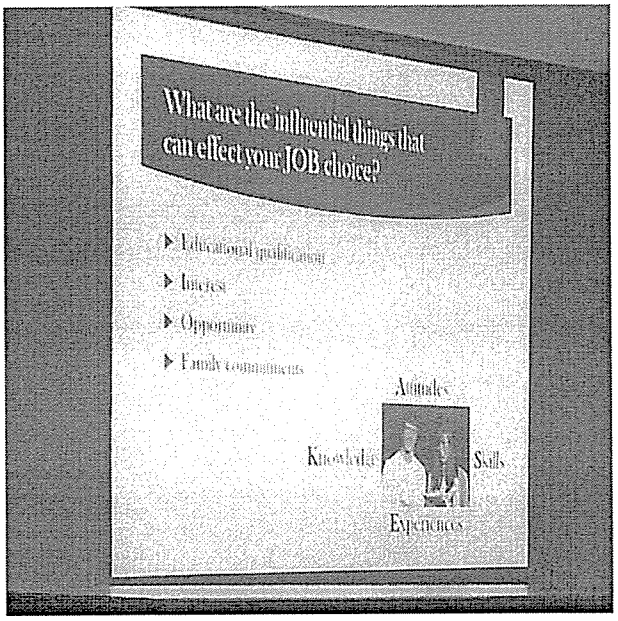
Accounts details: No expense was incurred

Overall impact of workshop: Excellent

Photographs of the event



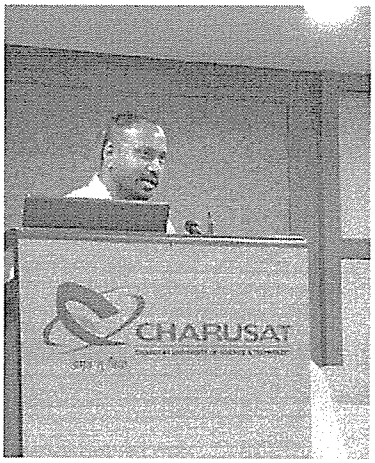
Dr. Anjali delivering talk (PDPIAS Auditorium 5/3/2020)



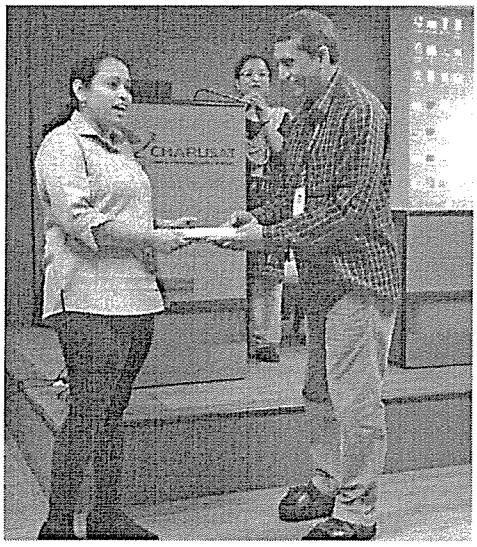
Slide on which things influence job choice. (PDPIAS Auditorium 5/3/2020)



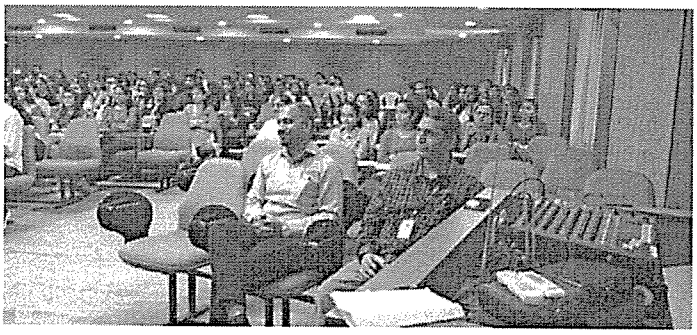
MSc sem IV and MSc sem II attending sessions (PDPIAS Auditorium_5/3/2020)



Mr. Rajeev, HR, Zytex interacting with students (PDPIAS Auditorium_5/3/2020)



Dr. Jain thanking Dr. Anjali on behalf of EOC and PDPIAS (PDPIAS Auditorium_5/3/2020)



Students giving feedback and asking questions (PDPIAS Auditorium_5/3/2020)

Department Coordinator Sign:

EOC coordinator

(Janki N Thakker, PDPIAS)

Head of Institute Sign

This certificate is computer generated and can be verified by scanning the QR code given below. This will display the certificate from the NPTEL repository, https://nptel.ac.in/noc/

Roll No: NPTEL20BT29S61090044

To
CHARMI PATEL
5, CHETNA SOCIETY
GOVIND NAGAR
DAHOD
GUJARAT - 389151
PH. NO :9408380331

Score	Type of Certificate
>=90	Elite+Gold
75-89	Elite+Silver
>=60	Elite
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL:1
An additional 1 credit may be awarded if the University deems it fit, based on the actual student effort involved.

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

CHARMI PATEL

for successfully completing the course

Biomedical Nanotechnology

with a consolidated score of 72 %

Online Assignments	24.17/25	Proctored Exam	48/75

Total number of candidates certified in this course: 733

Prof. V. C. Srivastava
Coordinator, Continuing Education Centre
IIT Roorkee

Sep-Oct 2020
(4 week course)

Prof. Inderdeep Singh
NPTEL Coordinator
IIT Roorkee

Indian Institute of Technology Roorkee

swayam

This certificate is computer generated and can be verified by scanning the QR code given below. This will display the certificate from the NPTEL repository, https://nptel.ac.in/noc/

Roll No: NPTEL20BT29S61040187

To
MEENAKSHI HITENDRA PUROHIT
1/B ADHIKAR SOCIETY PART-1
DCABIN, SABARMATI
AHMEDABAD
GUJARAT - 380019
PH. NO :9825318509

Score	Type of Certificate
>=90	Elite+Gold
75-89	Elite+Silver
>=60	Elite
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL:1
An additional 1 credit may be awarded if the University deems it fit, based on the actual student effort involved.

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

MEENAKSHI HITENDRA PUROHIT

for successfully completing the course

Biomedical Nanotechnology

with a consolidated score of 69 %

Online Assignments	23.33/25	Proctored Exam	45.75/75

Total number of candidates certified in this course: 733

Prof. V. C. Srivastava
Coordinator, Continuing Education Centre
IIT Roorkee

Sep-Oct 2020
(4 week course)

Prof. Inderdeep Singh
NPTEL Coordinator
IIT Roorkee

Indian Institute of Technology Roorkee

FREE ONLINE EDUCATION swayam शिक्षित भारत, उन्नत भारत

This certificate is computer generated and can be verified by scanning the QR code given below. This will display the certificate from the NPTEL repository, https://nptel.ac.in/noc/

Roll No: NPTEL20BT32551090046

To
JOBANPUTRA KHUSHI RAMESHBHAI
3 / 37 , RELIANCE SARYU APARTMENT
DAHEJ BY PASS ROAD , OPP. V.D. TOWNSHIP
BHARUCH
GUJARAT - 392001
PH. NO :9998964474

Score	Type of Certificate
>=90	Elite+Gold
75-89	Elite+Silver
>=60	Elite
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL:3
An additional 1 credit may be awarded if the University deems it fit, based on the actual student effort involved.

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

JOBANPUTRA KHUSHI RAMESHBHAI

for successfully completing the course

Genetic Engineering: Theory and Application

with a consolidated score of 63 %

Online Assignments	19.09/25	Proctored Exam	43.5/75

Total number of candidates certified in this course: 342

Sep-Dec 2020
(12 week course)

Prof. Hemant B Kaushik
Head, Centre for Educational Technology
& NPTEL Coordinator
IIT Guwahati

Indian Institute of Technology Guwahati

swayam

Annexure 3 (3)

JMBFS
Journal of Microbiology, Biotechnology and Food Sciences
International peer-reviewed scientific online journal
Published by Faculty of Biotechnology and Food Sciences

ELICITATION OF PLANT DEFENSE AGAINST *FUSARIUM OXYSPORUM* F.SP. *CICERIS* IN CHICKPEA PLANT USING MARINE *MICROCOCCUS SP.*

Palak Patel[1], *Keyur Patel*[1], *Pinakin Dhandhukia*[2] *and Janki N. Thakker*[*1]

Address(es):
[1]Department of Biotechnology, P.D. Patel Institute of Applied Sciences, Charotar University of Science and Technology, CHARUSAT Campus, Changa-388421, Anand (Gujarat), India.
[2]Department of Microbiology, Sheth P T Mahila College of Arts and Home Science, Veer Narmad South Gujarat University, Athwa Gate, Surat, Gujarat 395001.

*Corresponding author: jankithakker.bt@charusat.ac.in

doi: 10.15414/jmbfs.2020.10.3.361-365

ARTICLE INFO

Received 19. 4. 2020
Revised 7. 7. 2020
Accepted 8. 7. 2020
Published 1. 12. 2020

Regular article

OPEN ACCESS

ABSTRACT

Chickpea is produced as well as consumed highest in India amongst the whole world but, production is seriously curtailed by *Fusarium* wilt, caused by *Fusarium oxysporum* f.sp. *ciceris* (FOC). In stressful conditions, the reactive oxygen species (ROS) production increases in plants which cause significant damage. To reduce this ROS, plants have inbuilt antioxidants that can detoxify ROS and protect cells of plants. The present study aimed to investigate the effect of *Micrococcus luteus* on the induction of defense enzymes in the presence and absence of *Fusarium* in chickpea. Talc-based bio-formulation of marine *M. luteus* was employed under pot trials to scrutinize mechanism of induced resistance against *Fusarium* by the improvement of defense enzymes like SOD, POX as well as accumulation of L-proline, total phenolic and pigments like chlorophyll and carotenoids. Pot trials were done using four different conditions- T1 (control), T2 (*M. luteus* treated), T3 (FOC treated), and T4 (*M. luteus* + FOC treated). Defense enzymes were studied and a maximum increase in *M. luteus* treated plants as compared to control and pathogen treated plants were noted. The chlorophyll and carotenoid content were improved in *M. luteus* treated plants to pathogen treated plants. This study indicated that *M. luteus* helps the plant to protect itself from free radicals as it showed significant induction of enhanced plant defense response against soil-borne pathogen to protect chickpea plant.

Keywords: L-proline, total phenolic compounds, superoxide dismutase, peroxidase, chlorophyll, carotenoid

INTRODUCTION

Chickpea (*Cicer arietinum L.*) is one of the major legume crops widely cultivated for its edible seeds in the Indian sub-continent. Garbanzo beans are mainly used by humans and are an essential constituent of the Mediterranean diet. Seeds provide a decent and economical source of protein for essentially the vegetarian population, by choice or economic reasons, of developing countries especially in South Asia (**Gaur *et al.*, 2012**). This plant has a significant role in agriculture but the overall crop productivity is sternly hampered by the incursion of soil-borne pathogens such as fungi, bacteria, and viruses. The first report of a soil-borne pathogenic fungus *Fusarium oxysporum* f.sp.*ciceris* (FOC) as a causative agent of Fusarium wilt in India and its correct etiology was determined by Butler in 1918 and Padwik in 1940, respectively (**Cunnington *et al.*, 2007**). *Fusarium* wilt considered a major exotic disease-causing wilting at any time from the seedling stage to podding. The fungus invades plant root through wounds, assault cortical region, and reach to the stele resulted in characteristic vascular wilt (**Singha *et al.*, 2011**). Wilt in chickpea occurs in 32 countries across 6 continents (**Singh *et al.*, 2014**).

In response to the cross-talk between plant and pathogen, plants trigger a substantial array of defense mechanisms to ward off pathogens. A most decisive factor imparting successful warding of the pathogen is the swiftness of their defense response initiation which requires an apparent conception of the plant's ability to comprehend pathogen attack and control the expression of defense mechanisms. When plants are exposed to any biotic or abiotic stressful condition, the reactive oxygen species (ROS) production increases and it causes significant damage to the cellular components of plants. Plants have several inbuilt antioxidants that can detoxify ROS and inturn protect cellular components. Assorted defense-related genes chiefly encoding pathogenesis-related (PR) proteins are present in plants, bestow resistance from pathogens attributed to their potential to ward off pathogens. Therefore, the resistance mechanism of the host can be scrutinized by measuring the alteration in defense-related marker enzymes in response to external stimuli such as biotic and abiotic

The simulated response of plants is often complemented by the production of an array of host proteins with the ability to mount a defense against invader (**Tahsili *et al.*, 2014**). Research on the elucidation of host defensive responses to pathogen invasion have determined catalase, superoxide dismutase (SOD), peroxidase (POX), polyphenol oxidase (PPO), phenylalanine ammonia-lyase (PAL) and "pathogenesis-related" (PR) proteins (**Swarupa *et al.*, 2014 and Dehgahi *et al.*, 2015**). A multifaceted association of diverse signals regulates the plant's response for protection against pathogens (**Datta and Lal, 2018**). The number of chemical fungicides adopted to control fungal pathogens for a prolonged period, however, immoderate use of chemicals exert a detrimental effect on soil fertility and lead to a decrease in crop productivity. Moreover, the effectiveness of these fungicides remains for a stunted time during the croping season (**Akram and Anjum, 2011**). Plant growth-promoting bacteria were used to maintain the biogeochemical cycle of soil and helps to induce anti-oxidant property against reactive oxygen species (ROS) - used for detoxification against biotic and abiotic stress.

The present investigation aimed to ascertain the effect of *M. luteus* on the induction of defense enzymes in the presence and the absence of *Fusarium* in chickpea plant. Yellow pigmented actinobacterial strain *M. luteus* was previously isolated from the marine environment and used as a talc-based bio- elicitor to induce plant defense under pot trials. Further, induced defense mechanisms were studied against *Fusarium* by enhancement of defense enzymes and markers like SOD, POX, L-proline, and total phenolic in chickpea. Chlorophyll and carotenoid content were also assessed in plants that were treated with *M. luteus* as compared to FOC treated plants.

MATERIAL AND METHODS

Isolation of Marine bacteria

M. luteus strain (**Accession No. JX679497**) was isolated from the marine freshwater of Khambhat, Gujarat, India. *M. luteus* was inoculated on a nutrient

Annexure 4

	2017 Training									
Sr. No.	Roll number	Student name	Branch	Semester	Place of training	Duration/ Dates	Certificate copy	Report	Renumeration/F	Industrial
	2018 Training									
1	17BSC093	PATEL TANYA	BT	V	ARYA AGRO BIOTECH & RESEARCH CENTER	28-11-18 TO 5-12-18	YES	NO		YES

2019 TRAINING

1	17BSC118	VAGHELA SHREYA	BT	V	GUJARAT STATE FERTILIZERS & CHEMICAL LTD	15-5-19 TO 5-6-19	YES	NO		YES
2	17BSC100	PATIL NIRALI KISHOR	BT	V	GSFC AGROTECH LIMITED	15-5-19 TO 30-5-19	YES	NO		YES
3	17BSC090	PATEL SHRADDHABEN	MI	V	AMUL DAIRY	31-5-19 TO 19-6-19	YES	NO		YES
4	17BSC067	PATEL MANSIBEN	MI	V	AMUL DAIRY	31-5-19 TO 19-6-20	YES	NO		YES
5	17BSC060	PATEL KRINABEN RAMESHBHAI	MI	V	AMUL DAIRY	31-5-19 TO 19-6-21	YES	NO		YES
6	17BSC020	KANSARA HENY HETALKUMAR	MI	V	AMUL DAIRY	31-5-19 TO 19-6-22	YES	NO		YES
7	17BSC093	PATEL TANYA	BT	V	AMUL DAIRY	14-5-19 TO 30-5-19	YES	NO		YES
8	17BSC101	PRAJAPATI BHAUMIK	BT	V	AMUL DAIRY		YES	NO		YES
9	17BSC038	PATEL ATIT M	BT	V	AMUL DAIRY		YES	NO		YES
10	17BSC034	PARIKH HIRAK SAMIR	BT	V	AMUL DAIRY		YES	NO		YES
11	17BSC028	PAHILANI PAVAN M	MI	V	BANASKANTHA DISTRICT CO.OP MILK PRODUCERS UNION LTS	13-5-19 TO 1-6-2019	YES	NO		YES

Annexure 5

B.Sc V
BT 505 Industrial Biotechnology
Effect of pH on bacterial culture or growth
Effect of temperature on bacterial culture or growth
Effect of different carbon sources on bacterial culture or growth
Effect of different nitrogen sources on bacterial culture or growth
Measurement of microbial growth after exposure to different pH
Measurement of microbial growth after exposure to different temperatures
Measurement of microbial growth after exposure to different carbon sources
Measurement of microbial growth after exposure to different nitrogen sources
Estimation of citric acid production
Estimation of alcohol production

	MICROBIOLOGY
	MI821 (Industrial Microbiology)
1	Partial purification and concentration of amylase
2	Estimation of specific activity, fold purification and yield of protein purification
3	Ethanol fermentation by free and immobilized cells and its downstreaam processing
4	Purification of citric acid by Ca(OH)2 method
5	Isolation of antibiotic producers
6	Production and purification of Exopolysachharides
7	Isolation of auxotrophic mutants
8	Chemical Assay of penicillin

Annexure 6

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Date : 09/07/2020

P. D. PATEL INSTITUTE OF APPLIED SCIENCES

B.Sc

Syllabus Details

Effective Year 2020-21

Degree : B.SC
Total Subjects : 7
Total Regular Subjects : 2
Total Elective Subjects : 5

Semester : 5

Group Name : Core Courses

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT					TH		PR		PRJ		
		TH	PR	PRJ	TOTAL	TOTAL HOURS	Internal	External	Internal	External	Internal	External	TOTAL
BS503	BIOINFORMATICS	2.00			2.00	2.00	0/15	14/35	-	-	-	-	50
BS131.02	COMMUNICATION AND SOFT SKILLS		2.00		2.00	2.00	-	-	0/30	28/70	-	-	100
					4.00	4.00							150

Group Name : BSCSEM-5E

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT					TH		PR		PRJ		
		TH	PR	PRJ	TOTAL	TOTAL HOURS	Internal	External	Internal	External	Internal	External	TOTAL
BE510	BIOETHICS AND BIOSAFETY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
BE511	MICROBIAL ENZYMES	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
BE512	MANAGEMENT OF HUMAN MICROBIAL DISEASES	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
BE513	AGRICULTURAL BIOTECHNOLOGY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
BE514	DRUG DESIGNING	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100

Group Name : BSCMISem5Core

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT					TH		PR		PRJ		
		TH	PR	PRJ	TOTAL	TOTAL HOURS	Internal	External	Internal	External	Internal	External	TOTAL
MI505	FOOD AND DAIRY MICROBIOLOGY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
MI506	ENVIRONMENTAL MICROBIOLOGY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
MI507	PLANT PATHOLOGY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
MI508	MICROBIOLOGY LABORATORY-V		8.00		8.00	16.00	-	-	0/50	40/100	-	-	150

DEAN

Annexure 7

Library Book procurement PDPIAS

2019-20					
Bill no	**Dep**	**Date**	**Qty**	**Cost**	**Acc No**
1150	Phy	14/05/2019	2	1890	3770 to 3771
36	phy	22/06/20219	3	17555	3772 to 3774
58	Bio	29/07/2019	12	17950	3775 to 3786
1123	Bio	25/07/2019	18	8730	3787 to 3804
14527	Phy	8/7/2019	1	16983	3805
1126	BOT	3/8/2019	3	15419	3806 to 3808
1125	Math	3/8/2019	10	18180	3809 to 3818
310	BIO	8/8/2019	25	53440	3819 to 3843
311	BIO	9/8/2019	7	34998	3844 to 3850
109	BIO	7/9/2019	19	50325	3851 to 3869
1226	Math	18/09/2019	10	18180	3870 to 3879
			110	**253650**	

P D Patel Institute of Applied Sciences (2019-20)

Curriculum feedback analysis and action taken report

Sr. No.	Stakeholder	Feedback	Action Taken
1	Industry experts	Awareness for current industrial advancements Bridge the gap between industry and academia	Expert talk of alumni working in the industries/industrial expert lectures (Annexure 1)
2	Employers	Students need to be trained for basic etiquettes for a personal interview and professional relations	Guidence was provided using special classes on T&P (Annexure 2)
3	Academic peers	A special focus for competitive examinations like NET/SLET etc	Elective theory papers were introduced for improving analytical skills and critical thinking (Annexure 3)
4	CHARUSAT teachers	Internship/training in the industry during summer break	Encouraged students to take summer internships in research institutions and industries (Annexure 4)
5	Alumni	More weightage should be given to experiments	More focus will be given on the correlation between theory and experiments
6	Parents	Improvement required in communication skills and personality development	Special sessions were provided on communication skills by the humanities department (Annexure 5)
7	Present students	Additional problem-solving sessions for competitive examinations	Extra sessions will be arranged during contact hours (Annexure 3)

P.D. PATEL INSTITUTE OF APPLIED SCIENCES • CHARUSAT

23/07/2020

Annexure A

o2h

ventures . discovery . tech

WOMEN IN SCIENCE, TECH & ENTERPRISE

Inspiring Women



Saturday 21 Sept 2019

9:30am – 5:00pm

at H T Parekh Hall, AMA, ATIRA Campus, University Area, Ahmedabad

o2hlife
o2hventures
o2h-group
o2hlife
o2h group

www.o2h.com

o2h

Women's Open Day - AGENDA

21st September 2019 @ H T Parekh Hall, AMA

An Open Day for Women in Science, Tech & Enterprise - Inspiring Women 21 Sept '19 at H T Parekh Hall, AMA, ATIRA Campus, University Area, Ahmedabad, Gujarat	
Time	**Agenda**
08:30 AM	**Registration & Networking**
09:30 AM	**Welcome – A Community of Highly Motivated Women** Riddhi Ahuja, Dhaval Jayswal
	o2h Presentation Sujith Nair, Yesha Joshi
10:15 AM	**Learnings From Science Expert**
	Ms. Yogini Vanikar - Retd. Ex ISRO Scientist
10:45 AM	**Learnings From Successful Entrepreneur**
	Ms. Manisha Sharma - TV Journalist, Anchor
11:15 AM	**Learnings From Technology Expert**
	Ms. Kena Modi - Working Professional At Cygnet Infotech
11:45 AM	**Learnings From Serial Entrepreneur On Safety Of Women**
	Ms. Ruzan Khambatta - Founder At Wajra O' Force Empowerment Foundation
12.15 PM	**Panel Discussion - Why Should Women Pursue And Build Their Career?**
	Ms. Yogini Vanikar, Ms. Manisha Sharma, Ms. Kena Modi, Ms. Ruzan Khambatta
12:45 PM	**Panel Discussion - Importance Of Women In Workplace**
	Shabu Thomas, Hemal Soni, Sudipta Mukherjee, Pragnesh Thakkar, Yamin Lawar, Ruchi Nair, Asma Pathak, Rinkle Daswani, Neetu Singh Sengar
01:15 PM	**Lunch**
02:15 PM	**Depart For o2h**
03:00 PM	**Safety Message And o2h Lab Tour**

CHARUSAT

Kaushal Patel <kaushalpatel.bt@charusat.ac.in>

Invitation for o2h Women's Open Day - 20 Sept '19 - Nomination list to be shared by 27 Aug '19

1 message

Mon, Aug 26, 2019 at 9:17 AM

Neetu Singh <neetu@o2h.com>
To: kaushalpatel.bt@charusat.ac.in
Cc: Bhargavi Jansari <bhargavi@o2h.com>, Krishna Keshwala <krishna@o2h.com>, Sujith Nair <sujith@o2h.com>, Gunjan Thakkar <gunjan@o2h.com>, Sonia More <sonia@o2h.com>, HR <hr@o2h.com>

Dear Sir,

Greetings from o2h!!

This year o2h is celebrating "Women's Open Day" on 20th September 2019 , Friday in Ahmedabad.

We have been successfully celebrating the event for more than 10 years with the aim to guide/inspire young women to have an opportunity in science, tech and enterprise.

We would like to request you to kindly share the list of women attendees from final year chemistry/tech of your college(maximum 20) so we can get the final list of participants and accordingly we can start working on the arrangements to be made for them.

Deadline to submit the nominations is 27th August 2019 before 03:00 PM.

Soon, we will share the flyer and final agenda of the event.

Looking forward to have your valuable presence in the event.

Neetu Singh Sengar
Human Resource

o2h – *Co-investing, co-creating and co-executing across boundaries to collaboratively innovate in life-science, technology and social enterprise*
Oxygen Healthcare Research Pvt. Ltd.
Sharmista Research Campus
Plot No-35, Panchratna Industrial Estate
Changodar, Sarkhej Bavla Road
Ahmedabad - 382213

(O): +91 2717 252900
Ext. No.: 131
(M): +91 97249 36574
neetu@o2h.com
www.o2h.com

Please note this email may contain confidential information. If you have received it by mistake, please inform us by an email reply and then delete the message.

o2h, Cambridge, UK

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Annexure-I

UNDERTAKING LETTER- STUDENTS

We the students of Dept. of Advanced Organic Chemistry (M.Sc.) Sem-III Programme at CHARUSAT do here-by undertake that we are going on Industrial Visit/~~Cultural~~ Visit/~~Field~~ Trips/~~Students~~ Tour/Out Bound Training to Ahmedabad organized on date 21/09/2019 departure date 21/09/2019 time 6:00 AM from CHARUSAT and arrival on date 21/09/2019 time 6:00pm at CHARUSAT University. We will exhibit good behavior and remain obedient to the staff of the University during the Industrial Visit/Cultural Visit/Field Trips/Students Tour/out Bound Training or whatever is otherwise relevant or specified below.

Following list of Students we will also abide and will not participate in any activity that will breach the scope of the programme. CHARUSAT University and/or its Faculty/Staff will not be held responsible for any eventuality namely accident/injury/death or whatever mishap.

Sl. No.	Roll No.	Name	Signature
1.	18AOC005	DIXIT PRACHI	
2.	18AOC006	GANJAR JANKI	
3.	18AOC007	GHATODE RAVLEEN	
4.	18AOC008	JOSHI ISHANI	
5.	18AOC009	KANERIA MONA	
6.	18AOC010	KORAT DHARA	
7.	18AOC012	PANCHAL ANJALI	A.V.Panchal
8.	18AOC013	PATEL AYUSHI	A.J. Patel
9.	18AOC017	PATEL BANSRI	
10.	18AOC022	PATEL DIVYA	
11.	18AOC027	PATEL JANVI	J.P. Patel
12.	18AOC028	PATEL JANVI	
13.	18AOC030	PATEL KRISHNA	
14.	18AOC040	PUROHIT JANKI	
15.	18AOC045	SHARMA YESHA	

*The undertaking should repeat in all pages in case the number is more than 15

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

Annexure-I

UNDERTAKING LETTER- STUDENTS

We the students of Dept. of Advanced Organic Chemistry (M.Sc.) (Sem-III) Programme at CHARUSAT do here-by undertake that we are going on Industrial Visit/~~Cultural Visit~~/~~Field~~ Trips/~~Students~~ Tour/Out ~~Bound~~ Training to Ahmedabad organized on date 21/09/2019 departure date 21/09/2019 time 6:00 AM from CHARUSAT and arrival on date 21/09/2019 time 6:00pm at CHARUSAT University. We will exhibit good behavior and remain obedient to the staff of the University during the Industrial Visit/Cultural Visit/Field Trips/Students Tour/out Bound Training or whatever is otherwise relevant or specified below.

Following list of students. we will also abide and will not participate in any activity that will breach the scope of the programme. CHARUSAT University and/or its Faculty/Staff will not be held responsible for any eventuality namely accident/injury/death or whatever mishap.

Sl. No.	Roll No.	Name	Signature
1.	18AOC047	SOLANKI PALAK	Palak
2.	18AOC048	THAKAR VAIBHAVI	Vaibhavi
3.	1		
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			

*The undertaking should repeat in all pages in case the number is more than 15

Annexure 2

4th December 2020

Notice

Dear Students,

Attend following special sessions on Training and Placement.

Date and Day	Faculty	Topics
07/12/2020	Dr. Kaushal Patel	Medicinal chemistry, disconnection and interview etiquettes
08/12/2020	Dr. Vaibhav Patel	Heterocyclic chemistry, HPLC and interview etiquettes
09/12/2020	Dr. Abhishek Dadhania	Stereochemistry, reaction mechanism and interview etiquettes

Session time will be informed by respective faculty member.

All have to attend the sessions without fail.

ADadhania

Head,
Department of Chemical Sciences
PDPIAS, CHARUSAT

Annexure-3

Date : 02/08/2019

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

P. D. PATEL INSTITUTE OF APPLIED SCIENCES
MASTER OF SCIENCE

Syllabus Details

Effective Year 2019-20

Degree : M. Sc. (AOC) **Semester** : 3
Total Subjects : 7
Total Regular Subjects : 6
Total Elective Subjects : 1

Group Name : Regular

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOURS	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
OC821	NMR AND ESR SPECTROSCOPY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
OC822	NATURAL PRODUCTS	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
OC823	CHEMISTRY OF HETEROCYCLES	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
OC824	RETROSYNTHETIC ANALYSIS	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
OC825	PRACTICAL		8.00		8.00	16.00	-	-	0/90	84/210	-	-	300
OC827	TERM SEMINAR / ASSIGNMENT	3.00			3.00	6.00	-	-	-	-	-	-	
					23.00	34.00							700

Group Name : Elective-I

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOURS	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
OC826	SELECTED METHODS OF ANALYSIS	2.00			2.00	2.00	0/15	14/35	-	-	-	-	50
OC835	PROBLEM SOLVING IN CHEMICAL SCIENCES-I	2.00			2.00	2.00	0/15	14/35	-	-	-	-	50

Total Credit for Regular Subjects	:	23.00
Total Credit for Elective Subjects	:	2.00
Total Credit	:	25.00

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY Date : 02/08/2019

P. D. PATEL INSTITUTE OF APPLIED SCIENCES
MASTER OF SCIENCE

Syllabus Details

Effective Year 2019-20

Degree : M. Sc. (AOC) **Semester** : 4
Total Subjects : 7
Total Regular Subjects : 6
Total Elective Subjects : 1

Group Name : Regular

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOURS	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
OC828	MEDICINAL CHEMISTRY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
OC829	SYNTHETIC DYES AND PIGMENTS	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
OC830	MOLECULAR ORBITAL THEORY FOR ORGANIC CHEMISTS	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
OC831	SELECTED TOPICS IN ORGANIC CHEMISTRY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
OC832	PRACTICAL		8.00		8.00	16.00	-	-	0/90	84/210	-	-	300
OC834	TERM SEMINAR / ASSIGNMENT	3.00			3.00	6.00	-	-	-	-	-	-	
					23.00	34.00							700

Group Name : Elective-I

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOURS	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
OC833	ANALYSIS OF ANALYTICAL DATA	2.00			2.00	2.00	0/15	14/35	-	-	-	-	50
OC836	PROBLEM SOLVING IN CHEMICAL SCIENCES-II	2.00			2.00	2.00	0/15	14/35	-	-	-	-	50

Total Credit for Regular Subjects	:	23.00
Total Credit for Elective Subjects	:	2.00
Total Credit	:	25.00

Annexure (4)

PD Patel Institute of Applied Sciences
Charotar University of Science and Technology, Changa, Gujarat

Summer training 2020

S. No.	Programme name	Semester	Name of students	Summer training / Internship 2020
1	M.Sc.	2	PATEL ABHISHEK KAMLESHBHAI	Functional enrichment analysis of proteomics data using Cytoscape
2	M.Sc.	2	PATEL SAURAV RAJESHBHAI	
3	M.Sc.	2	URJA MANOJBHAI BARAIYA	
4	M.Sc.	2	ATODARIA RUCHI HIRENKUMAR	
5	M.Sc.	2	ANJALI OMANAKUTTAN PILLAI NAIR	Modeling and simulation of processes
6	M.Sc.	2	DADAWALA DEVARSHI VIKRAMBHAI	
7	M.Sc.	2	PRACHI ATULKUMAR PATEL	
8	M.Sc.	2	TANVI HARISHBHAI PATEL	Sustainable development: Strategies, Applications and Implications
9	M.Sc.	2	NIYATI VIMALKUMAR PATEL	
10	M.Sc.	2	PATEL NIDHI MAYANKKUMAR	
11	M.Sc.	2	PATEL VIYUSHTI BHARATBHAI	
12	M.Sc.	2	PATEL DRASHTI DHARMENDRA	
13	M.Sc.	2	DEVANSHIBEN JIGNESHBHAI PATEL	Metabolome of the Rhizosphere
14	M.Sc.	2	RIYA HITESH DAVE	
15	M.Sc.	2	GODHASARA MANSI MAHESHBHAI	
16	M.Sc.	2	BHADLA DHARTI GIRISHBHAI	Introduction to Cancer Biology
17	M.Sc.	2	RAVAL NIHAR RUPESH	
18	M.Sc.	2	SHAH RUTVI NALINBHAI	
19	M.Sc.	2	TUSHARBHAI DILIPBHAI PATEL	
20	M.Sc.	2	CHAUDHARY DHRUV DALJEET	
21	M.Sc.	2	NEER NIRAJBHAI KAPADIA	
22	M.Sc.	2	UPADHYAYA JOLLY VIJAYKUMAR	
23	M.Sc.	2	PATEL MITALBEN PANKAJKUMAR	
24	M.Sc.	2	NAGAR YAGINI BANSIBHAI	
25	M.Sc.	2	CHAUDHARY YASHASVI RAJESHKUMAR	
26	M.Sc.	2	PUROHIT MEENAKSHI HITENDRA	
27	M.Sc.	2	RAKSHITA BHARATBHAI KASVALA	
28	M.Sc.	2	NAGAR TANYA RAMESH	
29	M.Sc.	2	PATADIYA JAY CHETANBHAI	Enzyme engineering and Structure to Function
30	M.Sc.	2	THAKKAR PARTH SHAILESHKUMAR	

31	M.Sc.	2	THAKER DEVARSHIKUMAR UPENDRAKUMAR	relationships
32	M.Sc.	2	SHAH DHRUVI BHARATBHAI	
33	M.Sc.	2	DEVANSHI SHAILESHBHAI PATEL	
34	M.Sc.	2	ROHIT AJAY MANIBHAI	
35	M.Sc.	2	JIMITKUMAR NIMESHKUMAR PATEL	
36	M.Sc.	2	MEHTA ANERI SHILPAN	
37	M.Sc.	2	HARSH SAMIRBHAI PATEL	
38	M.Sc.	2	PATEL AAKASHKUMAR ALPESHBHAI	
39	M.Sc.	2	POOJA RAVINDRA JAIN	
40	M.Sc.	2	UPADHYAY HARDITA PRAKASHBHAI	Biofertilizers: Past, Present and future
41	M.Sc.	2	MISTRY DIVYABAHEN PRAVINBHAI	
42	M.Sc.	2	GAJJAR MANSI PRAFULCHANDRA	
43	M.Sc.	2	JOSHI KHUSHALI ASHOKBHAI	
44	M.Sc.	2	PARMAR CHIRAGKUMAR MANGALBHAI	
45	M.Sc.	2	PANCHAL VRUTTIBEN JAGDISHBHAI	
46	M.Sc.	2	PRAJAPATI DISHA PRADIPKUMAR	
47	M.Sc.	2	CHARMI BHUPENDRAKUMAR GANDHI	
48	M.Sc.	2	RANK DISHA NARANBHAI	
49	M.Sc.	2	PATEL MAHIMAKUMARI GHANSHYAMBHAI	
50	M.Sc.	2	SHAH NIMABEN KAMLESHKUMAR	
51	M.Sc.	2	ANJALI NATUBHAI ANTALA	
52	M.Sc.	2	SHREYA RAJESHBHAI ARDESHANA	
53	M.Sc.	2	MEHTA SACHI HARESHBHAI	
54	M.Sc.	2	PATEL ANJALIBEN KAMLESHKUMAR	
55	M.Sc.	2	RUTIK ATULBHAI GHODASARA	Biocontrol agents-Scope, mechanism and its market potential India
56	M.Sc.	2	PARMAR PAYAL JAYANTILAL	
57	M.Sc.	2	RAVI HIMATBHAI GORASIYA	
58	M.Sc.	2	GAJERA NIRALI RAJESHBHAI	
59	M.Sc.	2	BHOOT HELISHABEN PRADEEPKUMAR	
60	M.Sc.	2	SHAH NIDHI ARVINDKUMAR	
61	M.Sc.	2	DHARITRI ROHITKUMAR RAVAL	
62	M.Sc.	2	CHAUHAN RINKAL PANKAJBHAI	
63	M.Sc.	2	GAJERA RUCHITABEN JAYSUKHBHAI	
64	M.Sc.	2	DARJI AKSHINI VIJAYKUMAR	
65	M.Sc.	2	HARSH VASANTBHAI PATEL	
66	M.Sc.	2	SINGH SUBODHKUMAR DHANANJAYKUMAR	Dormancy in bacteria
67	M.Sc.	2	THAKKAR NIDHI RAJESHKUMAR	
68	M.Sc.	2	ZALA DEVANGI KANAKSINH	
69	M.Sc.	2	SHAIKH KAZIMA ABDULKARIM	Introduction to Virology
70	M.Sc.	2	PATEL AAKRUTI DINESHBHAI	
71	M.Sc.	2	PATEL HITAXIBAHEN DILIPKUMAR	

72	M.Sc.	2	CHOUDHARY SAMRIDDHI PANKAJ	
73	M.Sc.	2	BARIYA FALGUNIBEN KALSINGBHAI	
74	M.Sc.	2	PATEL DEEPALI JITESHBHAI	
75	M.Sc.	2	PATEL HENI SUNILBHAI	
76	M.Sc.	2	UMA NILKANTH IYER	
77	M.Sc.	2	PRACHI MAHESHBHAI PATEL	
78	M.Sc.	2	PATEL DIPAL HARESHKUMAR	
79	M.Sc.	2	PATEL SHIVANI JITENDRAKUMAR	
80	M.Sc.	2	DIXITA NARENDRABHAI PATEL	
81	M.Sc.	2	SUHAGIYA MAUSAMI KANTIBHAI	
82	M.Sc.	2	CHAUDHARI TIRTHNAKUMARI JAYESHBHAI	Introduction to biodiversity and conservation
83	M.Sc.	2	PATEL SWETA RAJNIKANTBHAI	
84	M.Sc.	2	SUHANI CHAUHAN	
85	M.Sc.	2	KAPADIA JINALBEN VIJAYKUMAR	Introduction to Neurochemistry
86	M.Sc.	2	PATEL KAIRAV PARESHBHAI	
87	M.Sc.	2	RANA SHRUTI DIPAK	
88	M.Sc.	2	MAKWANA VIDHI MANDIPKUMAR	
89	M.Sc.	2	PATEL MAHIMAKUMARI GHANSHYAMBHAI	
90	M.Sc.	2	PATEL DRASHTI DHARMENDRA	
91	M.Sc.	2	LIMBANI ARPITA RAJESH	
92	M.Sc.	2	PATEL MAULIKKUMAR ARUNBHAI	
93	M.Sc.	2	PATEL AKSHAYKUMAR ARUNBHAI	
94	M.Sc.	2	PATEL AESHA PARESHKUMAR	
95	M.Sc.	2	PATEL JENISH NAKUL	

PRINCIPAL
P. D. PATEL INSTITUTE OF APPLIED SCIENCES
CHARUSAT, CHANGA

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P. D. PATEL INSTITUTE
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P. D. PATEL INSTITUTE OF APPLIED SCIENCES
CHARUSAT

Annexure 5

Date : 21/06/2019

CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

P. D. PATEL INSTITUTE OF APPLIED SCIENCES

B.Sc

Syllabus Details

Effective Year 2019-20

Degree : B.SC
Total Subjects : 6
Total Regular Subjects : 6
Total Elective Subjects :

Semester : 2

Group Name : Core Courses

Course Code	Course Title	Teaching Scheme					Examination Scheme						
		CREDIT				TOTAL HOURS	TH		PR		PRJ		TOTAL
		TH	PR	PRJ	TOTAL		Internal	External	Internal	External	Internal	External	
BS208	GENERAL MICROBIOLOGY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
BS209	ANIMAL SCIENCES	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
BS210	ANALYTICAL TECHNIQUES IN BIOLOGY	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
BS211	BIOSTATISTICS	3.00			3.00	3.00	0/30	28/70	-	-	-	-	100
BS212	LABORATORY-II		8.00		8.00	16.00	-	-	0/50	40/100	-	-	150
HS126.01 E	COMMUNICATION SKILLS - 1	2.00			2.00	2.00	0/30	28/70	-	-	-	-	100
					22.00	30.00							650

Total Credit for Regular Subjects	:	22.00
Total Credit for Elective Subjects	:	0.00
Total Credit	:	22.00

Examination Grade Range & Value

Grade	Grade Points	From Marks	To Marks
AA	10.00	80	100
AB	9.00	73	79
BB	8.00	66	72
BC	7.00	60	65
CC	6.00	55	59
CD	5.00	50	54
DD	4.00	45	49
FF	0.00	0	44