



सत्यमेव जयते

Government of Maharashtra



HBSU

Dr. Homi Bhabha State University

Dr. Homi Bhabha State University, Mumbai

**The Institute of Science,
Mumbai**

ESTD 1920

Department of Biochemistry

2025-26



15, Madame Cama Road, Mumbai, Maharashtra 400032

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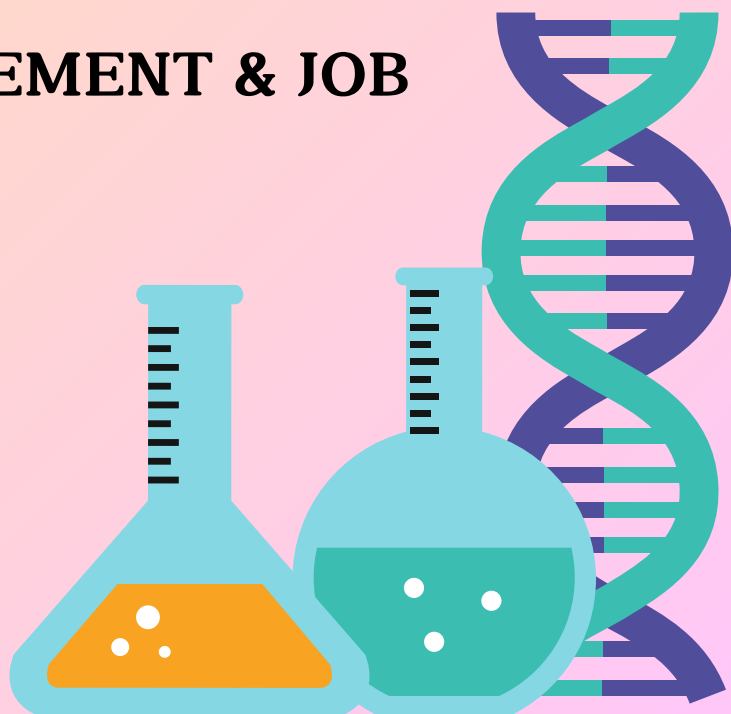
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ABOUT THE DEPARTMENT

BIOCHEMISTRY IS ONE OF THE OLDEST OF THE DEPARTMENTS. IT WAS INCEPTED IN THE EARLY 1940S UNDER THE LEADERSHIP OF PROF. KAMALA SOHONIE (FIRST INDIAN LADY PH.D. IN SCIENCE). SINCE THEN THE DEPARTMENT HAS SEEN ONLY THE GROWTH AND HAS PRODUCED GREAT MANY BIOCHEMISTS, TO NAME FEW, PROF. N. G. MAGAR, PROF. A. N. INAMDAR, PROF. BAPAT ETC. MANY OF THE ALUMNI OF THIS DEPARTMENT ARE WELL ESTABLISHED INDUSTRIALISTS, OR HOLD THE HIGHER POSTS IN THE HIGHLY REPUTED INDUSTRIES/FIRMS; IN INDIA AS WELL AS ABROAD. PRESENTLY THE DEPARTMENT HAS THE STUDENT ORIENTED AND NEP IMPLEMENTED CURRICULUM RUNNING. DEPT. HAS VERY GOOD RESEARCH AND HIGH INSTRUMENTATION FACILITIES. ALL THE FULL TIME FACULTIES OF THE DEPT. ARE PH.D. GUIDES, IN VARIOUS SUBJECTS.



A MESSAGE FROM THE HOD



DR. MANOHAR VITHALRAO PADUL

DEAR PROSPECTIVE STUDENTS,
I EXTEND A WARM INVITATION TO ALL PASSIONATE INDIVIDUALS SEEKING TO DELVE INTO THE DYNAMIC REALM OF BIOCHEMISTRY. OUR M.SC. BIOCHEMISTRY COURSE OFFERS A COMPREHENSIVE CURRICULUM DESIGNED TO NURTURE SCIENTIFIC INQUIRY, CRITICAL THINKING, AND HANDS-ON LABORATORY SKILLS. THROUGH CUTTING-EDGE RESEARCH PROJECTS AND EXPERT GUIDANCE FROM OUR DISTINGUISHED FACULTY, OUR STUDENTS EMBARK ON A JOURNEY OF DISCOVERY AND INNOVATION. JOIN US IN UNRAVELING THE MYSTERIES OF LIFE AT ONE OF INDIA'S PREMIER INSTITUTIONS. WE HAVE A TASK AT OUR HANDS OF PRODUCING THE PROBLEM SOLVERS, NOT JUST IN BIOCHEMISTRY BUT FOR ENTIRE LIFE SCIENCES. TOGETHER, LET US SHAPE THE FUTURE OF BIOCHEMISTRY AND MAKE MEANINGFUL CONTRIBUTIONS TO SCIENTIFIC KNOWLEDGE AND SOCIETAL WELL-BEING.

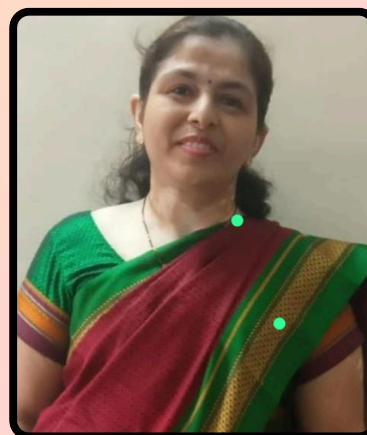
FACULTY MEMBERS



Prof. Manohar V. Padul (Prof. & Head)



Dr. S. B. Jadhav (Assistant Prof.)



Dr. Utkarsha M. Lekhak (Assistant Prof.)

PROGRAMMES WE OFFER

M.SC. BIOCHEMISTRY, PH. D. BIOCHEMISTRY.

**(FACULTY ARE ALSO PH.D. GUIDES FOR THE SUBJECTS
MICROBIOLOGY, BIOTECHNOLOGY, ENVIRONMENTAL
SCIENCE)**

ELIGIBILITY CRITERIA

**1. B.SC. WITH MIN. 50% MARKS WITH FOLLOWING
SUBJECT CRITERIA.**

2. B.SC. IN ANY LIFE SCIENCES RELATED SUBJECTS.

OR

**1. B.SC. WITH 3 UNITS OF CHEMISTRY OR
BIOCHEMISTRY AND 3 UNITS OF ANY OTHER LIFE
SCIENCE RELATED SUBJECTS.**

2. CHEMISTRY OR BIOCHEMISTRY IS MUST AT SYBSC.



BOARD OF STUDIES

Dept. of Biochemistry
Dr. Homi Bhabha State University, Mumbai.

Board of Studies Panel

Sr. No.	Name of University	Name of BOS member	Gender	Subject	Designation (Member/Chair person)	Mobile No. / Landline No.	Email Address	Contact Address
1	Dr. Homi Bhabha State University	Dr. Manohar V. Padul	Male	Biochemistry	Associate Professor	7588522298	manoharpadul@yahoo.co.in	Institute of Science, Dr. Homi Bhabha State University
2	Dr. Homi Bhabha State University	Dr. Rupendra S. Jadhav	Male	Microbiology	Associate Professor	9819998784	rupenjadhav@yahoo.com	Institute of Science, Dr. Homi Bhabha State University
3	Dr. Homi Bhabha State University	Dr. Shekhar B. Jadhav	Male	Biochemistry	Assistant Professor	9665048338	Jadhav.biochem@gmail.com	Institute of Science, Dr. Homi Bhabha State University
4	Dr. Homi Bhabha State University	Dr. Utkarsha M. Lekhak	Female	Biochemistry	Assistant Professor	9765025500	Utkarsha.sbedhalkar@gmail.com	Institute of Science, Dr. Homi Bhabha State University
5	Mumbai University	Dr. Ashish S. Uzgare	Male	Biochemistry	Vice Principal	9969363846	ashishuzgare@gmail.com	Wilson College, Mumbai
6	Mumbai University	Dr. Deepali Kothekar	Female	Biochemistry	Head, Dept of Biochemistry,	9967038139	deepalik@sies.edu.in	SIES College of Arts, Science and Commerce, Sion west, Mumbai
7	Savitribai Phule Pune University, Pune.	Prof. Kisan M. Kodam,	Male	Biochemistry	Professor	9423206831	kisankodam@gmail.com	Biochemistry Division, Department of Chemistry, SavitribaiPhule Pune University, Pune.
8	Pravara Medical University	Dr. Suresh P. Kamble	Male	Biochemistry	In-charge Director	9970451526	kamsuresh@gmail.com	Centre for Biotechnology, Pravara Institute of Medical Sciences, Loni, Ahmednagar.
9	Hanyang University	Prof. Sanjay P. Govindwar	Male	Biochemistry	Professor	9822840094	spgovindwar@hanyang.ac.kr	Hanyang University, Seoul, South Korea.
10	ComofiMedtech, Bangalore.	Dr. Satish Kalme	Male	Biochemistry	CEO		kalmesd@gmail.com	ComofiMedtech, Bangalore.
11	New Drug Discovery Research, Wockhardt, Aurangabad	Dr. Muftedar A. Patel	Male	Biochemistry	Group Leader	9422467027	Patel.medi2015@gmail.com	New Drug Discovery Research, Wockhardt, Aurangabad
12	Lab India Private Limited Mumbai	Dr. Mohan P. Bhagwat	Male	Biochemistry	Scientific Advisor	9699921144	mohambhagwat@gmail.com	Lab India Private Limited Mumbai
13	NCL, Pune.	Dr. Ashok P. Giri	Male	Biochemistry	Senior Scientist	9850942695	ashokpgiri@gmail.com	Biochemical Sciences Division, NCL, Pune.



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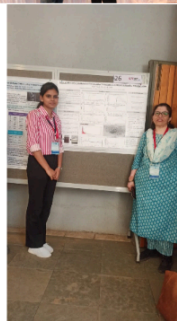
CREDIT PATTERN					
<i>SEMESTER-I</i>					
Course Code	Course Title	Credits		Workload	
		Theory	Practical	Theory	Practical
DSC-1 (MSBCDC101)	Biomolecules	4	2	4	08
DSC-2 (MSBCDC102)	Cell biology, Microbiology and Virology	4	2	4	08
DSE-1 (MSBCDE101 / MSBCDE102)	Bioorganic chemistry and Nanotechnology	4	2	4	08
	Pharmaceutical Biochemistry, Nutrition and Dietetics	4		4	
RM (MSBCRM101)	Research Methodology	4	00	4	00
Total		20	6	20	24
		26		44	
<i>SEMESTER-II</i>					
Course Code	Course Title	Credits		Workload	
		Theory	Practical	Theory	Practical
DSC-3 (MSBCDC201)	Enzymology and Analytical techniques	4	2	4	08
DSC-4 (MSBCDC202)	Molecular Biology	4	2	4	08
DSE-2 (MSBCDE201 / MSBCDE202)	Bioinformatics, Genomics and Proteomics	4	2	4	08
	Entrepreneurship development, IPR and Biosafety	4		4	
OJT/FP (MSBCOJ201)	OJT/FP	00	4	00	16
Total		16	10	16	40
		26		56	
<i>SEMESTER-III</i>					
Course Code	Course Title	Credits		Workload	
		Theory	Practical	Theory	Practical
DSC-5 (MSBCDC301)	Immunology and Clinical biochemistry	4	2	4	08
DSC-6 (MSBCDC302)	Metabolism	4	2	4	08
DSE-3 (MSBCDE301 / MSBCDE302)	Plant Biochemistry and tissue culture	4	2	4	08
	Animal Biochemistry and tissue culture	4		4	
RP (MSBCRP301)	Research Project	00	04	00	16
Total		16	10	16	40
		26		56	
<i>SEMESTER-IV</i>					
Course Code	Course Title	Credits		Workload	
		Theory	Practical	Theory	Practical
DSC-7 (MSBCDC401)	Genetic Engineering	4	2	4	08
DSC-8 (MSBCDC402)	Neurochemistry, Cancer Biology, Stem Cells	4	00	4	00
DSE-4 (MSBCDE401 / MSBCDE402)	Fermentation technology	4	02	4	08
	Advances in Immunology	4		4	
RP (MSBCRP401)	Research Project	00	06	00	24
Total		16	10	16	40
		26		56	

FESTS & EVENTS

DEPT. ORGANIZES VARIOUS ACADEMICS ORIENTED EXTRACURRICULAR ACTIVITIES THROUGHOUT THE YEAR. EVERY YEAR 2-3 GUEST LECTURES ARE ORGANIZED TO GIVE STUDENTS THE EXPOSURE TO THE RENOWNED PERSONALITIES OF DIFFERENT DOMAINS INCLUDING RESEARCH, INDUSTRIES, AND ACADEMICS ETC. STUDENTS ARE ALWAYS ENCOURAGED TO PARTICIPATE IN THE CULTURAL & SPORTS (WHICH SPANS TOTAL OF 8-9 DAYS) (DR. SHEKHAR JADHAV IS THE CO-ORDINATOR OF BOTH OF THESE TASKS) AND ANY OTHER ACADEMIC ACTIVITIES THAT ARE CONDUCTED IN THE INSTITUTE ANNUALLY.

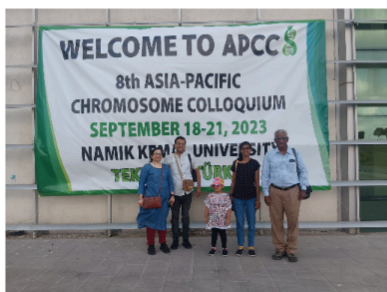
Our M. Sc. Part II Biochemistry Student **Ms. Priti Rajendra Singh** awarded with the **WenYan Scholarship** by **Pune Knowledge cluster** for her Master's Project

Sr. No.	Activity	Particulars
1.	Achievement	WenYan Scholarship by Pune Knowledge cluster
2.	Name of the student	Ms. Priti Rajendra Singh
3.	Purpose	M.Sc. Project
4.	Amount	Rs. 15,000/- Per Month for a period of six months
5.	Mentor	Dr. Utkarsha Lekhak



Presentation of Research work at various places

Sr. No.	Activity	Particulars
1.	Name of the presenter	Dr. Utkarsha Manoj Lekhak
2.	Conference	8th Asia-Pacific Chromosome Colloquium (APCC8) to be held from 2023
3.	Duration	18 th September 2023 to 21 st September
4.	Place	Tekirdağ Namik Kemal University, Tekirdag, Turkey.



Sr. No.	Activity	Particulars
1.	Name of the presenter	Ms. Sana Jalili
2.	Anveshan	West Zone Anveshan competition by AIU
3.	Duration	27 and 28 December 2023
4.	Place	Shivaji University, Kolhapur.



KEY FEATURES

DEPT. HAS A SEPARATE LIBRARY IN THE DEPT. (MORE THAN 100 BOOKS) ALONG WITH THE BOOKS ACCESSIBLE FROM THE MAIN LIBRARY (WHICH CONSTITUTES OF AROUND 3000 BOOKS FOR BIOCHEMISTRY). THE DEPT. HAS VERY GOOD RESEARCH FACILITIES, VIZ. UV-VIS SPECTROPHOTOMETER, MULTIMODE PLATE READER, HORIZONTAL AND VERTICAL ELECTROPHORESIS UNITS, REFRIGERATED CENTRIFUGE, -20 & -80 DEGREE DEEP FREEZERS, BEAD BEATER, ULTRACENTRIFUGE, BATH & PROBE SONICATORS, LYOPHILIZER, GLASS HOMOGENIZER, LAB SCALE FERMENTER, AND HPLC ETC.; WHICH ARE ACCOMMODATED IN TWO "INSTRUMENTATION ROOMS" AND ONE DEDICATED "RESEARCH LAB". THERE IS A SEPARATE LAB FOR THE M.SC. STUDENTS. COMPUTATIONAL FACILITY IS ALSO AVAILABLE IN THE FORM OF A "COMPUTER LAB".

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C

T

A

INSTRUMENTATION FACILITIES



**ULTRA FILTRATION
UNIT**



FERMENTER



MULTIMODE PLATE READER



**AUTOMATED CELL
COUNTER**



**UV. VIS DOUBLE
SPECTROPHOTOMETER**



BATH SONICATOR



HPLC



PROBE SONICATOR



REFRIGERATED CENTRIFUGE



**LABORATORY
CENTRIFUGE**



ULTRA CENTRIFUGE



AUTOCLAVE

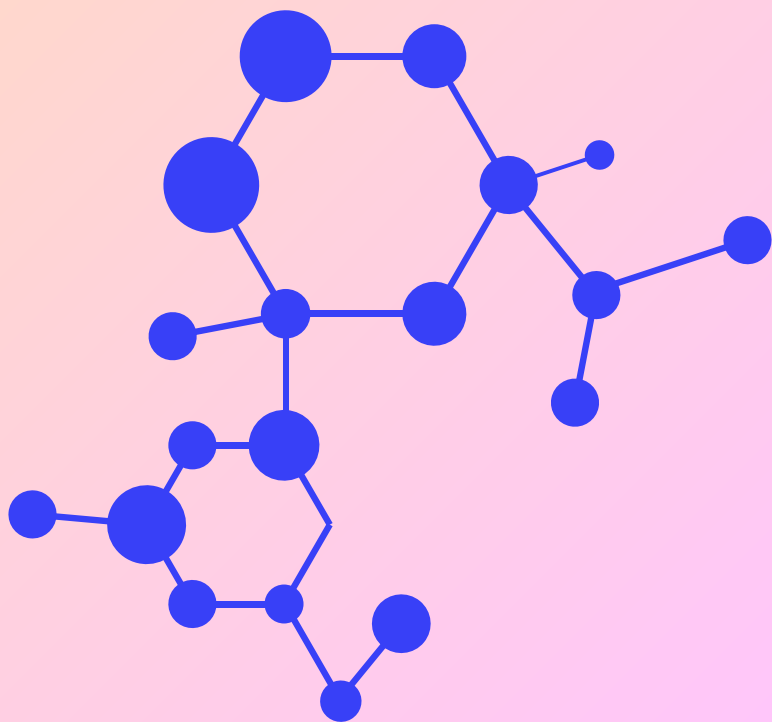


LYOPHILIZER

INTERNSHIP, PLACEMENT & JOB OPPORTUNITIES

**JOB OPPORTUNITIES: LECTURESHIP, IN
PATHOLOGY LABS AS TECHNICIANS, IN
PHARMA AND ALLIED INDUSTRIES IN QUALITY
CONTROL AND R AND D DEPARTMENTS. IN
FOOD INDUSTRY. FSSAI, FDA, FORENSIC
LABORATORIES AS CHEMICAL ANALYZERS.
BIOCHEMISTS, PROJECT ASSISTANTS,
ASSOCIATES, RESEARCH INTERNS IN
NATIONAL LABORATORIES. HIGHER STUDIES
PH.D.**

**INTERNSHIPS: DEPT. ACHIEVES 100% OJT (ON
JOB TRAINING OPPORTUNITIES) OR FIELD
PROJECTS.**



CONTACT DETAILS

Email regarding admission concerns to be sent to –
biochemistry@iscm.ac.in.

1. HoD - Prof. Manohar Padul (manohar@iscm.ac.in ;
07588522298).

2. Student Co-ordinator - Dr. S. B. Jadhav
(jadhav.biochem@gmail.com ; 09665048338).

3. Faculty - Dr. Utkarsha Lekhak (Utkarsha@iscm.ac.in ;
09765025500).

