

Shri Shivaji Education Society Amravati's
SCIENCE COLLEGE, Congress Nagar, Nagpur

DEPARTMENT OF MICROBIOLOGY

INTERNAL ACADEMIC AUDIT

Session 2020-2021

1. Vision and Mission of the Department:

- To be one of the leading department which provides best education in Microbiology and to create innovator.
- To inspire and motivate students so that they take keen interest in Microbiology subject and help them to built strong career.

2. A. Faculty Strength:

Faculty	Recruited	Vacant	Remarks
Regular	01		
CHB	05		
Ad-hoc	-		
Non-teaching	03		

B. Faculty Profile:

Name	Highest Qualification	Designation	Specialization	Teaching Experience
Mrs. M.J. Madhugiri	M.Sc., NET	Associate Professor and H.O.D. Microbiology	Microbiology	36 Years
Dr. Pranita Gulhane	M.Sc., Ph.D., B.Ed.	Assistant Professor (CHB)	Microbiology	15 Years (Adhoc Lecturer 10 Years + C.H.B. Lecturer 05 Years)
Dr. Manpreet Kour	M.Sc., Ph.D., B.Ed., M.Phil.	Assistant Professor (CHB)	Microbiology	10 years (Adhoc Lecturer 9 + C.H.B. Lecturer 01 Year)
Mrs. Nupur Deshmukh	M.Sc.	Assistant Professor (Adhoc)	Microbiology	4 years (Adhoc Lecturer 2.5 Years + 1.6 Years)

				C.H.B. Lecturer)
Mrs. Madhuri Walvekar	M.Sc.	Assistant Professor (CHB)	Biotechnology	2 Years (C.H.B. Lecturer)

3. Students Strength:

A. (Summer 2021)

Year	Group	Number of Students Admitted
B.Sc. Semester II	CBM	31
	CZM	53
	CMBT	82
	Total	166
B.Sc. Semester IV	CBM	29
	CZM	45
	CMBT	84
	Total	158
B.Sc. Semester VI	CBM	33
	CZM	62
	CMBT	98
	Total	193
M.Sc. Semester II		25
M.Sc. Semester IV		21
Ph.D.	-	-
Value Added Program	-	-

B. (Winter 2020)

Year	Group	Number of Students Admitted
B.Sc. Semester I	CBM	31
	CZM	53
	CMBT	82
	Total	166
B.Sc. Semester III	CBM	29
	CZM	45
	CMBT	84
	Total	158
B.Sc. Semester V	CBM	33
	CZM	62
	CMBT	98
	Total	193
M.Sc. Semester I		25
M.Sc. Semester III		21
Ph.D.		-
Value Added Program		-

4. Students Performance:

A. Result Analysis (Winter 2020) UG & PG

Programme Code	Programme Name	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
Science	BSc Sem I	155	150	96.77%
	BSc Sem III	140	139	99.11%
	BSc Sem V	153	153	100%
	MSc Sem I	25	25	100%
	MSc Sem III	21	21	100%

B. Result Analysis (Summer 2021) UG & PG

Programme Code	Programme Name	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
Science	BSc Sem II	152	151	99%
	BSc Sem IV	134	131	97.76%
	BSc Sem VI	159	157	98.74%
	MSc Sem II	25	25	100%
	MSc Sem IV	21	20	95.23%

C. Achievements:

A- (Medals/Awards/Prizes at University level)

Sr.No.	Name of the Students	Class	Title
1	Vishal R. Kharchwal	BSc Final Year	Rashtriya Samaj Seva Ratna Award-2021 given by The Global Human Rights Foundation, National Prestigious Award, Delhi
2	Vishal R. Kharchwal	BSc Final Year	Best Student Award for session 2020-2021 given by Microbiologists Society, India
3	Rakhi Khandelwal	MSc Final Year	Best Student Award for session 2020-2021 given by Microbiologists Society, India
4	Vaishnavi Ghugal	BSc Final Year	Secured Second Rank in Digital Poster Making Competition organized by Drafting Committee, National Education Policy 2020
5	Rashmi Chopkar	BSc Final Year	Grabbed the position in top six of the conducted in the National Webinar on Plant Tissue Culture: 'Techniques & Applications' held on May 2021

B- Merit Position of PG Students in RTMNU (for PG Dept. only)

Sr.No.	Name of the Students	Class	Title
1	Sanskriti S. Kukade	M.Sc. Final Year (2019-2020)	RTMNU 2 nd Merit position with 8.64 CGPA
2	Muskan C. Harde	M.Sc. Final Year (2019-2020)	RTMNU 2 nd Merit position with 8.64 CGPA
3	Lavanya N. Shriramwar	M.Sc. Final Year (2019-2020)	RTMNU 2 nd Merit position with 8.64 CGPA
4	Shital B. Bante	M.Sc. Final Year (2019-2020)	RTMNU 2 nd Merit position with 8.64 CGPA

5. Students Progression:

Year	No. of students enrolling into higher Education	Program graduated from
	UG to PG	BSc Final Year
2020-2021	On campus	Ms. Suvarna D. Tekade (MSc Microbiology)
		Ms. Kanchan D. Selukar (MSc Microbiology)
		Ms. Shibani A. Sahare (MSc Microbiology)
		Ms. Vaishnavi R. Mewade (MSc Microbiology)
		Ms. Shruti R. Nikose (MSc Microbiology)
		Ms. Nidhi R. Gour (MSc Microbiology)
2020-2021	Off campus	Mr. Kartikey P. Matte (MSc Microbiology)
		Ms. Dhanashree S. Morghade (MSc Chemistry)
		Ms. Rutuja S. Potkar (MSc Chemistry)
		Ms. Prajakta C. Feddewar (MSc Chemistry)
		Ms. Khushboo I. Sheikh (M.Sc. Zoology)
		Ms. Ritika P. Patel (M.Sc. Microbiology)
		Ms. Khushi R. Gandhi (M.Sc. Microbiology)
		Ms. Shreyasi S. Challawar (M.Sc. Microbiology)
	PG to Research	-
2020-2021	Placement	Mr. Yogesh D. Ninawe- QC Chemist at Hindustan Foods Limited, Piparia Industrial Estate, Silvassa, Dadra and Nagar Haveli
		Ms. Diksha N. Bhanuse- Laboratory Technician

		at Nagpur Molecular Diagnostics and Research Laboratory, Ramdas Peth, Nagpur
		Ms. Pooja D Karemore- Jr. Chemist at Unijules Life Sciences Limited, Hingna, Nagpur

(i) **Students' publication in Extracurricular activity**

Title of the Paper	Name of Author	Title of journal	Year of publication
Biofilms	Achala Waghmare MSc Final Year (2019-2021)	Compendium of "Research Insights of Life Science Students". (ISBN: 978-81-946500-0-3). Sector-Microbiology, Volume 1, Chapter 126 (Page no. 278-279)	Year 2020
Camphor	Ankita Manapure MSc Final Year (2019-2021)	Compendium of "Research Insights of Life Science Students". (ISBN: 978-81-946500-0-3). Sector-Microbiology, Volume 1, Chapter 113 (Page no. 249-250)	Year 2020
Biofuel from Algae: An Alternative Fuel	Rakhi Khandelwal MSc Final Year (2019-2021)	Compendium of "Research Insights of Life Science Students". (ISBN: 978-81-947154-5-0). Sector- Microbiology, Volume-2, Chapter 113 (Page No.18-20)	Year 2020
Bioweapons: An Emerging Threat	Rakhi Khandelwal MSc Final Year (2019-2021)	Compendium of "Research Insights of Life Science Students". (ISBN: 978-81-947154-5-0). Sector- Microbiology, Volume-2, Chapter 113 (Page No.21-23)	Year 2020
Production of alpha amylase by different kind of organisms	Komal Dhoble MSc Final Year (2019-2021)	Compendium of "Research Insights of Life Science Students". (ISBN: 978-81-947154-5-0). Sector- Microbiology, Volume-2, Chapter 113 (Page No. 36-38)	Year 2020

(ii) Students' Extension Activity

Sr. No.	Name of Student	Participation
1	Sarvesh Bagde	First Winner in Jingle Competition on the topic "Social Distancing norms (rules) to be followed to stop Corona virus from spreading" organized by Department of Microbiology, S.S.E.S.A's Science College, Nagpur on 27 th December 2020.
2	Rakhi Khandelwal	Second Winner in Jingle Competition on the topic "Social Distancing norms (rules) to be followed to stop Corona virus from spreading" organized by Department of Microbiology, S.S.E.S.A's Science College, Nagpur on 27 th December 2020.
3	Komal Dhoble	Third Winner Jingle Competition on the topic "Social Distancing norms (rules) to be followed to stop Corona virus from spreading" organized by Department of Microbiology, S.S.E.S.A's Science College, Nagpur on 27 th December 2020.

(iii) No. of Students pursuing higher course

Fourteen 14 (whose confirmed data is received) (there might be more students but we could not communicate with all pass out students)

Under graduate students of our department pursuing higher education.

Sr. No.	Name of the Student	Name of the P.G. Course being Admitted	Name of the College/Institute	Mobile Number
1	Ms. Suvarna D. Tekade	M.Sc. Microbiology	P.G. Department of Microbiology, Science College, Congress Nagar, Nagpur	8805562485
2	Mr. Kartikey P. Matte	M.Sc. Microbiology	P.G.T.D. of Microbiology, L.I.T. Campus, R.T.M.N.U., Nagpur	8830513178
3	Ms. Dhanashree S. Morghade	M.Sc. Chemistry	P.G. Department of Chemistry, Amolakehand Mahavidyalaya, Yavatmal	9552026456
4	Ms. Rutuja S. Potkar	M.Sc. Chemistry	P.G. Department of Chemistry, Science College, Congress Nagar, Nagpur	9970307280
5	Ms. Prajakta C. Feddewar	M.Sc. Chemistry	P.G. Department of Chemistry, Science College, Congress Nagar,	9049577935

			Nagpur	
6	Ms. Khushboo I. Sheikh	M.Sc. Zoology	P.G. Department of Zoology, Science College, Congress Nagar, Nagpur	7030572786
7	Ms. Ritika P. Patel	M.Sc. Microbiology	P.G. Department of Microbiology, Taywade College, Mahadula, Koradi	9067439193
8	Ms. Khushi R. Gandhi	M.Sc. Microbiology	P.G.T.D. of Microbiology, L.I.T. Campus, R.T.M.N.U., Nagpur	9373727979
9	Ms. Shreyasi S. Challawar	M.Sc. Microbiology	P.G.T.D. of Microbiology, L.I.T. Campus, R.T.M.N.U., Nagpur	7218403675
10	Ms. Kanchan D. Selukar	M.Sc. Microbiology	P.G. Department of Microbiology, Science College, Congress Nagar, Nagpur	7972115167
11	Ms. Shibani A. Sahare	M.Sc. Microbiology	P.G. Department of Microbiology, Science College, Congress Nagar, Nagpur	7972143646
12	Ms. Vaishnavi R. Mewade	M.Sc. Microbiology	P.G. Department of Microbiology, Science College, Congress Nagar, Nagpur	9011082843
13	Ms. Shruti R. Nikose	M.Sc. Microbiology	P.G. Department of Microbiology, Science College, Congress Nagar, Nagpur	9730239664
14	Ms. Nidhi R. Gour	M.Sc. Microbiology	P.G. Department of Microbiology, Science College, Congress Nagar, Nagpur	8793867754

(iv) Students' participation in Seminar: Nil

Student of M.Sc. Sem IV participated in conference

Sr. No.	Name of Students	Conference type	Participation as
1.	-	-	-

(v) Students' Learning course through-on-line

Sr. No.	Name of Student	Participation
1	Ankita Manapure.	Four week International Online Certificate Course on "Basic Techniques in Microbiology" organized by Department of Microbiology, Sacred Heart College, Tirupattur, Tamil Nadu, India in association with Microbiologists Society, India and Western Rio Janerio State University, Brazil from 13/07/2020-13/08/2020.

2	Saloni Komawar	Four week International Online Certificate Course on "Basic Techniques in Microbiology" organized by Department of Microbiology, Sacred Heart College, Tirupattur, Tamil Nadu, India in association with Microbiologists Society, India and Western Rio Janerio State University, Brazil from 13/07/2020-13/08/2020.
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6. Faculty

I. Research Paper Publications: 01

A. Total Number of publications:

- i) International 01
- ii) National -

B. Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self-citation
Antibacterial Potential of <i>Ocimum sanctum</i> and <i>Bryophyllum pinnatum</i> against Wound Pathogens	<u>Pranita Gulhane</u> and Nishi Selote	International Journal of Pharmacy and Biological Sciences	2021	-	S.S.E.S.A's Science College, Congress Nagar, Nagpur	-

C. Faculty participation in conferences/seminar/workshop and symposia:

Name of the Faculty	Title of Conference/ Seminar/ workshop Attended	Period	Level International/ National/State /University /College	Whether Presented papers	Whether abstract /paper published in Souvenir/Abstract Book
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Dr. Pranita Gulhane	Comprehensive e-Learning to e-Training guide for Administrative Work	25May-05June 2020	FDP	-	-
	Evolution from Offline to Online Teaching	30May-03June 2020	FDP	-	-
	Medical Bacteriology	01June-30June 2020	FDP	-	-
	G Suite & Allied Tools in Education, Teaching & E-content Development	29June-04July 2020	FDP	-	-
	E-Content Development and Delivery, Research Methodology and Autonomy	27July-01August 2020	FDP	-	-
Dr. Manpreet Kour	Open Source tools for Research	08 June-14 June 2020	FDP	-	-
	Medical Bacteriology	01June-30June 2020	FDP	-	-
Ms. Madhuri Walvekar	Evolution from Offline to Online Teaching	30May-03June 2020	FDP	-	-
	Open Source tools for Research	08June -14 June 2020	FDP	-	-
	Medical Bacteriology	01June-30June 2020	FDP	-	-
	Managing online classes and co-creating MOOCS	20April-06May 2020	FDP	-	-

Comprehensive e-Learning to e-Training guide for Administrative Work	25May-05June 2020	FDP	-	-
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D. Awards to Faculty members

Dr. Pranita Gulhane has received Senior Scientist Award and Best Young Scientist Award (2020-2021)

- **Senior Scientist Award:**

Awarded State Level Senior Scientist Award in Microbiology by Microbiologists Society, India on 16th June 2021 with a **Certificate and Memento**.

- **Best Young Scientist Award 2021:**

Awarded IJMTST Excellence Award for Best Young Scientist Award 2021 in Microbiology by International Journal for Modern Trends in Science and Technology (UGC Approved Journal), Andhra Pradesh- ISO Certified and Registered Enterprise with Ministry of MSME, Govt. of India on 16th August 2021 with a **Certificate, Gold Medal and Memento**.

7. MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year: Nil

Date of MOU	Organization	Purpose/Activity	Student Participate under MOU
-	-	-	-

8. Research funds sanctioned and received from various agencies, industry and other organizations: Nil

Nature of the Project	Duration	Name of funding Agency	Amount Sanctioned	Amount Received
-	-	-	-	-

9. Books Published: Nil

	Book		Book Edited
	Title	ISBN and Date	Chapter
-	-	-	-

10. Research Guidance by Faculty during the year: Nil

Name of the guide	Ph.D		
	Awarded	Submitted	Registered
-	-	-	-

11. Alumni engagement: Nil

a. Contributes significantly to the development of the institution through financial and other supports: Nil

-	-	-	-	-

b. Alumni contribution during the year: Nil

12. Action Plan of the Department:

Different activities are planned to conduct in the upcoming academic session (2021-2021) which includes-

- Inauguration of Microbiologists Society Students' Unit
- Welcome and Felicitation of B.Sc. and M.Sc. Microbiology students
- National/International Conference/Workshop/Seminar/Symposium
- Guest Lectures of eminent Academicians/ Scientists/ Researchers
- Debate Competition
- Quiz Competition

13. Best Practices of the Department:

Department always organizes various activities for the benefit of students. Under Microbiologists Society India, UG and PG Microbiology students are encouraged to participate in various academic and extra-curricular activities at college level activities well as those organized by MSI. Teacher- student interaction is encouraging which inculcate competitive and humanitarian spirit in the students. Those activities are given as under-

- On the occasion of Birth Anniversary of Founder President Late Dr. Panjabrao Deshmukh, Jingle competition on the topic “Social Distancing norms (rules) to be followed to stop Corona virus from spreading” was organized by Department of Microbiology, S.S.E.S.A’s Science College, Nagpur on 27th December 2020.
- For creating awareness about corona virus and black fungus infection, an Expert Talk on “COVID-19 and Mucormycosis: Myths & Facts” was organized by Department of Microbiology, S.S.E.S.A’s Science College, Nagpur on 31st May 2021 on Google Meet digital platform.

14. SWOT Analysis:

➤ **Strength-** Well equipped Microbiology laboratory and experienced teaching staff and Nonteaching staff.

Most of the students get admissions to M.Sc.

Most of the students secure jobs after B.Sc. and M.Sc.

All teachers complete allotted syllabus in time satisfactorily.

Department has good facilities for research activities.

Excellent performance of students (Meritorious rank) in R.T.M. Nagpur University examinations.

➤ **Weakness-** Limited Laboratory space. Posts of Regular Teaching staff are vacant.

➤ **Opportunities-** Microbiology is basic as well as applied subject, therefore during this pandemic situation of COVID 19, now the students have understood the importance of microorganisms and higher demand of microbiology subject. There are job opportunities in this field i.e. Vaccine Development, Research Analyst, Pathology Laboratory Technician, Quality Control officer, Food and Drug Administrative officer, District Malaria officer, Clinical Laboratory Technician etc.



Dr. Poanita Gulhane
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