

RAJASTHAN EDUCATION SOCIETY'S



R. A. ARTS, SHRI M. K. COMMERCE AND
SHRI S. R. RATHI SCIENCE MAHAVIDYALAYA,
WASHIM. (M. S.)



Evaluative Report of The Department

Department of Microbiology

Department of Microbiology

The self-evaluation of every department may be provided separately in about 3-4 pages, avoiding the repetition of data.

1	Name of Department	Microbiology
2	Year of Establishment	U.G- 1995-96 P.G-2007-08 (Non-grant)
3	Name of Programs/ courses offered	<ul style="list-style-type: none"> ➤ UG ➤ PG ➤ M. Phil ➤ Ph.D.
4	Name of interdisciplinary courses and the Departments/Unit Involved	<ul style="list-style-type: none"> ➤ Certificate course in Medical laboratory technology under UGC- COP ➤ Diploma course in Medical laboratory technology under UGC- COP ➤ Advanced Diploma course in Medical laboratory technology under UGC- COP
5	Annual / Semesters /choice base Credit System (program wise)	UG - Semester pattern
6	Participation of Dept. in course offered by Other Dept.	NOT APPLICABLE
7	Courses in collaboration with other Universities Industries, foreign institutions etc.	NOT APPLICABLE
8	Details of courses / programs discontinued (If any) with reasons.	NOT APPLICABLE

9. Number of teaching posts:

Designation	Sanctioned	Filled
Professors	-	-
Associates Professors	-	-
Asst. Professors	03	03

10. Faculty Profile:

Name	Qualification	Designation	Specialization	No. of Years Of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. N. S. Kulkarni	M.Sc, M. Phil, Ph.D-(By Course By Research.	Associate Professor & Head	Agriculture and soil Microbiology, Soil Eco physiology	22	11
Dr. R. R. Pachori	M.Sc, SET, Ph.D.	Asst. Professor	Clinical Microbiology and Reproductive Biology	11	-
P. S. Sadar	M.Sc., M. Phil	Asst. Professor	Microbial Enzymology	11	-

11. List of senior visiting Faculty - Nil**12. Percentage of lectures delivered and practical classes handled (program wise) by temporary faculty**

Sr. No	Name of Faculty	B.Sc-1	B.Sc-2	B.Sc-3	M.Sc-1	M.Sc-2
1	CHB-1	6.25	0	0	25	25
2	CHB-2	0	6.25	0	25	25

3	CHB-3	0	0	6.25	25	25
4	CHB-4	6.25	0	0	25	25

13. Student -Teacher Ratio (program wise):

UNDER GRADUATE SECTION

Year	Teachers	Students	Ratio
2011-12	3	72	1:24
2012-13	3	122	1:40
2013-14	3	160	1:53
2014-15	3	171	1:57
2015-16	3	190	1:63
2016-17	3	185	1:62

POST GRADUATE SECTION

Year	Teachers	Students	Ratio
2011-12	06	27	1:9
2012-13	05	12	1: 2.5
2013-14	09	10	1:1
2014-15	07	15	1:2
2015-16	08	25	1: 3.1
2016-17	05	35	1:7

14. Number of academic support staff:

Post	Academic Staff (Technical)	Administrative Staff
Sanctioned	02	00
Filled	02	00

15. Qualification of Teaching Faculty:

Sr. No.	Name of the Faculty	Qualifications
1	Dr. N. S. Kulkarni	M.Sc, M. Phil, Ph.D.
2	Dr. R. R. Pachori	M.Sc, SET, Ph.D.
3	P. S. Sadar	M.Sc, M. Phil

16. Number of faculty with ongoing projects:

- National : 01
- International : NIL

17. Departmental projects funding by DST - FIST; UGC; DBT; ICSSR etc. an total grants received: 04

Faculty	Agency	Grants Received	Year of sanction	Status
Dr. N. S. Kulkarni	UGC	97,000/-	2007-08	Completed
Mr. P. S. Sadar and Dr. N. S. Kulkarni	UGC	1,19,500/-	2008-09	Completed
Dr. N. S. Kulkarni	UGC	14.76 lakhs	2010-11	Completed
Dr. R. R. Pachori	UGC	4,00,000/-	2014-15	Completed

18. Research Centre /facility recognized by the University

University has recognized the Microbiology laboratory for Ph.D. research in 2008 for the intake of (08) Research scholars .

19. Publications:

- Publication per faculty

Faculty	Publications In Peer Reviewed Journal
Dr. N.S. Kulkarni	39
Dr. R. R. Pachori	16
Mr. P. S. Sadar	07

- Number of papers published in peer reviewed journals (National / International) by faculty and students

Sr. No	Name of the Faculty	No. of Publications	
		National	International
➤ 1	Dr. N. S .Kulkarni	22	17
➤ 2	Dr. R. R. Pachori	07	09
➤ 3	Mr. P. S. Sadar	03	04
➤ Total		32	30

- Number of publications listed in International Database
 1. Monographs : NIL
 2. Chapter in books : NIL
 3. Books Edited : 07 (Authored)
 4. Books with ISBN/ISSN numbers with details of publication :

Sr. No.	Publisher	Year of Publication	Name of Book	ISBN
01	Himalaya Publishing House	2007-08	General Enzymology	978-81-8318-832-6

02	Himalaya Publishing House	2007-08	Glossary in biotechnology, genetic Engineering & biographies of related Scientists	978-81-8318-832-7
03	Himalaya Publishing House	2008-09	Food & Nutrition	978-81-8488-562-0
04	Himalaya Publishing House	2009-10	Modern approaches in soil agriculture and environmental microbiology	978-81-8488-956-7
05	Lambert publishing house, Germany	2011-12	Dielectrophoresis: An easy approach for Biotrapping	978-3-8443-2277-4
06	Himalaya Publishing House	2015-16	Water Microbiology (An Indian perspective)	978-93-5202-129-1
07	Nabha Prakashan, Amravati	2015-16	A textbook of Microbiology	978-81-905776-104-2

5. Citation Index : 01
6. SNIP : NIL
7. SJR : NIL
8. Impact factor : NIL
9. H index : NIL

20. Areas of consultancy and income generated:

- Consultancy- Microbiology Social Agro consultancy Services
- Income generated- Nil

21. Faculty as members in:

- National committees : 01
- International Committees : 01
- Editorial Boards : 03

22. Student projects:

- Percentage of students who have done in houses projects including inter departmental / program –
 - UG- Nil
 - PG- 100%

23. Awards/ Recognitions received by faculty and students :

Students

- Postgraduate student received an overall prize for poster presentation at national & international students meet.
- Student was selected for the university & state level Aavishkar.
- Student of BSc received first prize in university merit list.
- Student of MSc received first prize gold medal in university merit list for three terms.

Faculty

- Teachers are members of syllabus committees, BOS members, & visiting faculty for other universities.
- The HOD is on the university panel for interviews & resource person for refresher courses.
- The teacher of this dept. is the recipient of national award Bharat Shiksha Ratna at New Delhi in 2013-14.
- The HOD is chief editor of- Microbiology E- Newsletter: Microbiovision, Journal of Microbial World, as well as editorial board member of Journal of Empirical Biology.
- The teacher of this dept. is reviewer of journal viz.webmed central, Indian phytopathology, Indian journal of natural products and natural resources.

24. List of eminent academicians and scientists/visitors to the department:

- Dr.R.B.Somani- Scientist And Head, Plant Pathology Laboratory Dr.P.D.K.V. Akola
- Dr.M.G.Bodhamkar- Dean Science Faculty And Controller Of Examination, B.V.U.Pune
- Dr.Dyanand Agsar- Head Microbiology ,Dept. Gulberga university
- Dr.Am.Deshmukh.- Head Microbiology Dept., Marathwada University
- Dr.Bhogle. M.S- Maneging Director, Micobax Pvt Ltd Hybd
- Dr.Sunil Somni- Principal,S.G.M. Autonomous Engineering Colleg Shegaon

25. Seminars/Conference/Workshops organized and the source of funding:

- **National** : (01) National conference on Innovations in Biosciences (IBS-2011) was organized on 14-15 October, 2011 funded by UGC
- **International** : NIL

26. Student profile program / course wise:**2011-12**

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
B.Sc-I	40	33	09	24	75
B.Sc-II	23	23	04	19	73.91
B.Sc-III	16	16	05	11	100
M.Sc-I	10	10	00	10	80
M.Sc-II	20	17	04	13	100
Certificate course in Medical Laboratory Technology	18	18	00	18	100
Diploma course in Medical Laboratory Technology	12	12	00	12	100
Advanced Diploma course in Medical Laboratory Technology	nil	nil	nil	nil	100

2012-13

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
B.Sc-I	76	69	24	45	65.67
B.Sc-II	38	38	10	28	63.16
B.Sc-III	15	15	02	13	93
M.Sc-I	02	02	02	00	50
M.Sc-II	08	08	00	08	100
Certificate course in Medical Laboratory Technology	23	23	07	16	100
Diploma course in Medical Laboratory Technology	18	18	01	17	100
Advanced Diploma course in Medical Laboratory Technology	12	12	00	12	100

2013-14

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
B.Sc-I	78	69	28	41	76.50
B.Sc-II	62	62	25	37	63.93
B.Sc-III	29	29	03	26	93.10
M.Sc-I	07	07	03	04	100
M.Sc-II	03	03	02	01	66.66
Certificate course in Medical Laboratory Technology	32	32	05	27	100
Diploma course in Medical Laboratory Technology	20	20	03	17	100
Advanced Diploma course in Medical Laboratory	09	09	00	09	100

Technology					
2014-15					

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
B.Sc-I	78	69	28	41	76.50
B.Sc-II	62	62	25	37	63.93
B.Sc-III	29	29	03	26	93.10
M.Sc-I	07	07	03	04	100
M.Sc-II	03	03	02	01	66.66
Certificate course in Medical Laboratory Technology	32	32	05	27	100
Diploma course in Medical Laboratory Technology	20	20	03	17	100
Advanced Diploma course in Medical Laboratory Technology	09	09	00	09	100

2015-16

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
B.Sc-I	90	82	28	54	78.50
B.Sc-II	56	56	22	34	73.93
B.Sc-III	52	52	17	35	93.10
M.Sc-I	17	17	06	11	100
M.Sc-II	08	08	02	06	100
Certificate course in Medical Laboratory Technology	20	20			100
Diploma course in Medical Laboratory Technology	20	20			100
Advanced Diploma course in Medical Laboratory	20	20			100

Technology					
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*M = Male *F = Female

27. Diversity of Students:

Name of course	% of students from the same State	% of students from other States	% of students from abroad
B. Sc, M.Sc & MLT	100%	NIL	NIL

28. How many students have cleared national and State competitive examinations such as NET, SLET, GATE, Civil services , Defense services, etc. - Nil

29. Student progression:



UG to PG

Year	Total number of students enrolled	No. of Students from UG to PG
2011-12	27	23 (85%)
2012-13	12	08 (80%)
2013-14	10	06 (60%)
2014-15	15	11 (73.33%)
2015-16	25	19 (76%)

➤ PG to M.Phil.: Nil

➤ PG to Ph.D.

Year	Total number of students enrolled	No. of Students from PG to Ph.D.
2011-12	05	01(20 %)
2012-13	-	-
2013-14	-	-
2014-15	02	02 (100 %)
2015-16	03	02 (66.66 %)



Ph.D. to Post-Doctoral : Nil

➤ Employed

• Campus selection NOT APPLICABLE

• Other than campus recruitment

Sr. No.	Name of student	Placement details
1.	Santosh Padole	Executive Microbiologist, Q.C. Soverien Pharma, Nanidaman.
2.	Harish Khandelwal	Research Associate, NCL, Pune
3.	Dhiraj Pande	Production officer, Serum Institute of India Ltd. Pune
4.	Amol Dange	Microbiologist Q. C. Soverien Pharma, Nanidaman.
5.	Sangita Mande	Lab Technician,Rural hospital , Mangrulpeer.
6.	Sonone	Lab Technician, PHC, Tondgaon
7.	Jaiswal	Teacher
8.	Prithviraj Sadar	Lecturer , Dept. of Microbiology, R. A .College ,Washim
9.	Jyoti Dhule	Lab Technician, T. B. Section, Civil Hospital, Washim
10.	Sandeep Raut	Teacher
11.	Rajesh Bajad	Advocate, Aurangabad bench
12.	Gajanan lade	Teacher, Matoshri Sushilabai Jadhao high school , washim
13.	Jai Jaiswal	Research Associate, Dept. of Biotechnology, S. G. B. Amravati University , Amravati.
14.	Purohit	Blood Bank Technician , Kantadevi Dale Blood Bank, Washim.
15.	Deepak Walke	Junior Researcher R & D Chaitanya group of Industries Malkapur.
16.	MUKanda Jadhao	Food Technologist, Jain Irrigation System Ltd. Jalgaon.
17.	Vaibhav Dattke	Product Manager , Marketing Biotechnology, Mumbai.
18.	Arti Wankhede	Bolld Bank Technician, Civil Hospital, Washim.
19.	Chandan Bora	Research Associate, Jabalpur
20.	Pravin Jirwankar	Relience life Science , Mumbai.
21.	Pooja Purne	Lab Technician, Rural Hospital Malegaon.
22.	Rahul Bhujbal	M. R. Sunpharma, Pune Division
23.	Rachana Bhutada	CHB, Pune
24.	Bharti Panzade	Lab Technician, Civil Hospital , Amravati.
25.	Vidya Zare	CHB, Dept. of Biotechnology, Milind College,Aurangabad.

26.	Deepak Sharma	Biofertilizer Counsultancy, Malegaon.
27.	Priyanka Joshi	ICICI, Pune
28.	Vaishnavi Ansingkar	Lecturer at junior college, Pune
29.	Kavita Ambekar	CHB, P. G. Department of Microbiology , R. A .College, WAshim
30.	Anand Kulkarni	M. R. Synchen Pharma, Washim Division
31.	Sharda Kabra	Lecturer, Dept. of Biotechnology, Yashwant College, Nanded.
32.	Vijay Manwatkar	Lab Technician, MMC , Mumbai.
33.	Pankaj Adhoo	Food Microbiologist, wadilaal , Mumbai.
34.	Namrata Zanzad	Seed Technologist, Jalna.
35.	Pallavi Baj	Kit Analyser, Sarushyam Diagnostic center, Pune.
36.	Arun Kankal	Microbiologist (Blood Bank) GMC , Akola.
37.	Pravin Ghuge	Lab Technician, MMC Mumbai.
38.	Sneha Mantri	CHB, P. G. Department of Microbiology , R. A .College, WAshim
39.	Sonal Birla	Seed technologist, Ankur Seeds, Nagpur.
40.	Hemant Tiwari	Thomas Cook, Pune
41.	Snehal Gattani	CHB, Dept. of Biotechnology, Barwale college, Jalna
42.	Ritesh Khishte	Lupin pharma ltd.,Aurangabad
43.	Sagar Ansingkar	ITC,Ahmadnagar
44.	Supriya Koundinya	Lab technician,(DOTS), civil hospital,Washim
45.	Siddharth Jadhav	Q.C Microbiologist, Serum, Pune
46.	Vishal Gheware	Medical Representative
47.	Mukesk Polkar	Lab technician,Govt. hospital, Mukhed
48.	Dipak Ingale	High school teacher, Shirpur
49.	Nagendra Jadhav	CHB lecturer, Sinha college, Patur
50.	Swati Raibole	CHB lecturer, Sinha college, Patur
51.	Ruchita Mishra	CHB Lecturer, Nursing college, Renold hospital, Washim
52.	Shweta Vyawahare	Lab technician, Govt. hospital, Washim
53.	S. V. Tare	Lab technician, BMC, Mumbai

54.	Pallavi Wadhankar	Lab technician, BMC, Mumbai
55.	Sapna Somani	High school teacher,Aurangabad
56.	Pratibha Ingole	High school teacher,Mehkar
57.	Pramod Zare	Dairy industry, Nashik
58.	Kanchan Kandelkar	Lab technician, Dahala lab, Washim
59.	Payal Agrawal	CHB Lecturer, Y.C. College, Washim
60.	Shraddha Dhoble	CHB Lecturer, R. A. College, Washim
61.	V. V. Mahankar	CHB Lecturer, R. A. College, Washim
62.	Nilam Jiwanani	CHB Lecturer, R. A. College, Washim
63.	Anand Pande	CHB Lecturer, R. A. College, Washim
64.	P. S. Choudhari	CHB Lecturer, R. A. College, Washim
65.	Ashwini Joshi	High school teacher, Shantiniketan school, Washim
66.	Durga Tayade	Lab technician, Baheti hospital, Washim
67.	Ashwini Yenkar	High school teacher, Shantiniketan school, Washim
68.	Renuka Agrawal	CHB Lecturer, R.L.T College, Washim
69.	S. V. Deshmukh	CHB Lecturer,P.P. College, Risod
70.	Jitendra Dalal	Editorial associate, Grade -1, Crest primidia solutions Ltd. Pune

➤ **Entrepreneurship/Self-employment-**
Nil

30. Details infrastructural Facilities:

- Library : There is departmental e- library and departmental journals. In e- library, 146 books are installed on computer and students can access this as and when required.
- Internet facilities for Staff and Students : Available
- Class rooms with ICT facilities : Available
- Laboratories : 04

31. Number of students receiving financial assistance from college, university, government or other agencies.

GOI Scholarship is available to SC/ST/OBC/VJ and NT/SBC students. Other gets freeship.

32. Details on student enrichment programme (special lecture/ workshops/ seminar) with external experts.

The department organized various departmental activities viz. Student Association of Microbiology (SAM), Seminar competition, Quiz competition etc. to enrich the student knowledge about subject. Under the activities conducted in SAM various guest lectures are arranged each year on innovative topics in Microbiology. The expertize speakers are invited time- to- time for the programmes.

33. Teaching methods adopted to improve student learning:

- Brain Storming
- Case Study
- Conventional teaching method
- Field and Industrial visits
- Group Discussion
- Interactive media material
- Participatory teaching learning
- Question-Answer Method
- Use of ICT in teaching

34. Participation in Institutional Social Responsibility (ISR) and Extension Activities.

Faculty and students of microbiology department are encouraged to participate in collaboration with other organizations in Carrying outreach programs. Information regarding these Programs is disseminated through notices and Heads of Departments. Institute appreciates the services provided by Our students and faculty by considering their working for such activities as on duty.

35. SWOC Analysis of the department and Future Plans.

Strength:

The strength of the department may be described in terms of

- (i)Physical resources
- (ii)Human resources
- (iii)Learning resources

Physical Resources:

Physical resources of the Microbiology Department includes its own Administrative Block, separate Well equipped modernized laboratory for each year course , Digital seminar hall, Teachers' conference room , modern advanced laboratory for doctoral research with invertor for uninterrupted power supply.

Human Resources:

Human resource of the Microbiology Department includes its head of the Department; teaching staff as permanent faculty members and 08 number of temporary faculty member; 02 numbers of permanent non-teaching staff and 1 number of temporary office staff; and e - library

Present student strength of the Microbiology Department is two hundred and twenty five (215) comprising of students of microbiology from UG, PG & RESEARCH level.

Learning Resources:

Learning Resource of the Microbiology Department –

(a) Modern e - library with plenty of reference and text book, periodic journals and newsletters, separate reading facilities for students and faculty members.

(b) Central computer laboratory with free internal access for students. Internet facilities are also available in the departments.

(c) E- class room consisting computer, LCD overhead projector.

Weakness:

Following are the some weakness in teaching- learning methods in the institution –

(a) Shortage of permanent faculty members in the post graduate departments.

(c) Insufficient recreation facilities for faculty members

(e) There is a need to improve facilities to the students both in academic and co-curricular activities.

(f) Limitation of opening job oriented and skill development courses for the Microbiology students.

Opportunities:

(a) To introduce job oriented and skill development, self-employed courses and other emerging subjects

(b) To open Post Graduate classes with super specialization in applied Microbiological

(c) Research and extension activities in the field of local culture natural resources and its utilization

Challenges:

(a) To provide job opportunities to the degree holders students from migrating to the city to pursue higher education

(b) Due to the poor economic background of the locality it is difficult to open self- financed job oriented courses

(c) To start research activities for the development of the faculty members with available facilities in collaboration with nearby Universities and research institutes.

Future Plan:

(a) Development in infrastructure facilities for applied research.

(b) Opening more of job oriented and self-finance programmes

(c) Stress on research especially in the field of Agriculture Biotechnology and to solve the problems of the neighboring local communities via departmental extension service.