

Krantisinh Nana Patil Mahavidyalaya, Walawe

Tal. Walwa Dist. Sangli

DEPARTMENTAL PROFILE

(2012-13 to 2018-19)

1. Name of the Department : Chemistry
2. Year of Establishment: 1992
3. Name of the Program offered: B. Sc.
4. Program Pattern : CBCS/Elective
5. About Department:

Department was established in the year 1992 the same year as the establishment of the college. The first batch of B.Sc. Chemistry as a special subject; passed out in the year 1995. The department has well experienced and qualified seven faculty members who teach at the UG programmes as well as at the certificate courses. The department has spacious laboratory equipped with the required instruments and other amenities. Two teachers are recognized as research guide. Department organizes various activities like seminar, quiz, project work, workshop on career, industrial visit, alumni interaction, Teacher's day celebration etc. for overall development of the students and give them exposure to the applications of Chemistry. Workshops are even conducted on the applications and use of software to draw chemical structures. We strive to provide the best to the students and help them to make meaningful contributions to our society. The aim of the department is to expose the students to the rapidly expanding chemical technologies and to provide opportunities for job placement. The number of students of the department is successfully placed in various chemical industries.

6. Aims of the Department: 1. acquire some knowledge of the empirical world. 2. acquire an ability to observe accurately and objectively. 3. acquire an ability to solve problem. 4. acquire an ability to think scientifically, independently and to make rational discussion. 5. acquire an ability to communicate , using the language of chemistry. 6. develop an appreciation of chemistry and its application in daily life. 7. promote an awareness of the social, economic, environmental and technological implication of chemistry.

7. Objectives: 1. To encourage students to take an active part in class. 2. To encourage students to develop curiosity and a spirit of enterprise. 3. To teach good laboratory practice and skills. 4. To teach students to be aware of the safety of oneself and others in the laboratory and be committed to safe practices in daily life. 5. To teach students to analyze data from experiments or from other sources. 6. To acquire students a readiness in becoming responsible citizens in a changing world. 7. To provide students with some insight into future career prospect in the fields related to Chemistry

8. Program Specific Outcomes and Course Outcomes: Enclosed separate copy of PSOs and Cos
9. Teaching Faculty

Nature of the Posts	Sanctioned	Filled	Vacant
Associate Professor	06 Full time teacher	01	-
Assistant Professor		02	01
Contract Basis (C.H.B.)		04	

10. Faculty Profile:

		
Dr. Nitin S. Patil	Name: Dr. Ashok R. Mulik	Name: Mr. M. D. Jamdar
Associate Professor	Assistant Professor	Assistant Professor
Date of Joining : 5 th July 1993	Date of Joining :10 th Aug 1994	Date of Joining : 10 th Aug 1994

1. No. of Faculties sanctioned	2. No. of Faculties on roll	3. No. of faculties with Ph.D.	4. No. of faculties with M.Phil.	5. No. of faculties with Master
06	03 Full time, 02 on contractual hour basis	02	-	03

10. Number of Academic Support Staff(Technical and Administrative)-

	
Name: Mr. Sanjay R. Jadhav	Name: Mr. Prakash S. Pawar
Designation: Laboratory Assistant	Designation: Laboratory Attendent
Date of Joining: 1 st July 1994	Date of Joining: 1 st sept 1997

11. Number of Full Time Teachers: (2018-2019) 03 Full time, 01 CHB

12. Number of Students: (2018-2019) 190

13. Student Teacher Ratio: (2018-2019) 47.5 : 1

(Total Number of Students to Department/No. of Faculty)

14. Workload Distribution:

Year	Name of the Faculty	Mandatory Workload	Extra Workload	Total Workload Allotted
2012-13	Dr. N. S. Patil	18	02	20
	Dr. A. R. Mulik	20	01	21
	Mr. M. D. Jamdar	20	01	21
2013-14	Dr. N. S. Patil	18	02	20
	Dr. A. R. Mulik	20	01	21
	Mr. M. D. Jamdar	20	01	21
2014-15	Dr. N. S. Patil	18	02	20
	Dr. A. R. Mulik	20	01	21
	Mr. M. D. Jamdar	20	01	21

2015-16	Dr. N. S. Patil	18	02	20
	Dr. A. R. Mulik	20	01	21
	Mr. M. D. Jamdar	20	01	21
2016-17	Dr. N. S. Patil	18	02	20
	Dr. A. R. Mulik	20	01	21
	Mr. M. D. Jamdar	20	01	21
2017-18	Dr. N. S. Patil	18	02	20
	Dr. A. R. Mulik	20	-	20
	Mr. M. D. Jamdar	20	-	20
	Mrs. A. A. Patil	07	07	07

15. Laboratory Dimensions:

Particulars	Length (meter)	Breadth (meter)	Area meter ²
Main working laboratory	9.7	6.7	65
Preparation room	2.6	3.5	9.1
Store Room	2.4	3.5	8.4
Instrumental section	5.2	3.0	15.6
Total			98 m²

16. List of Major Equipments:

Sr. No.	Name of the Equipment	Date of Purchase	Price	Number	Manufacturer
1	Abbe's refractometer	94-95	7500	01	Rajdhani
2	Electric burner	94-95	4960	04	Lab Hosp
3	Conductometer CM-180	94-95	18450	02	Elico
4	Magnetic Stirrer	94-95	3700	02	Lab Hosp
5	Potentiometer	94-95	3225	01	Equiptronic
6	Suction Pump	94-95	10500	01	Lab Hosp
7	Thermostat 1°C accuracy	94-95	14500	01	Kumar
8	Photoelectric colorimeter	96-97	21250	01	Erma
9	Electric centrifuge machine	94-95	2300	01	Remi
10	Digital pH meter	98-99	5330	01	Equiptronic
11	Polarimeter	2006-07	9000	01	Coslab
12	Abbes refractometer	2006-07	9000	01	Coslab
13	Muffle Furnace	2006-07	16100	01	Lab- Hosp
14	Laboratory Oven	2006-07	7300	01	Lab- Hosp
15	Digital balance (1 mg accuracy)	2007-08	32500	01	Contech CA-123
16	Digital melting point apparatus	2010-11	43763	01	Coslab
17	Digital balance (1 mg accuracy)	2012-13	33750	01	Contech CA-223
18	Thermostat 1°C accuracy	2012-13	53440	01	Kumar
19	Vacuum pump oil free	2012-13	20625	01	Lab- Hosp
20	Abbes refractometer	2012-13	27000	02	Coslab
21	Conductometer CM-180	2012-13	33160	02	Elico
22	Muffle furnace	2012-13	26400	01	Bio technic India
23	ICE flaker	2012-13	149000	01	Asia S. S.

17. Gender wise and Caste wise classification of students admitted(B.Sc. III)

Academic Year	No. of students admitted	Open	SC	SBC	NT	VJNT	OBC	Male	Female
2012-13	20	16	-	-	-	-	04	14	06
2013-14	25	17	-	04			04	12	13
2014-15	26	20	-	01			05	20	06
2015-16	24	17		01			06	11	13
2016-17	28	15	02	03			08	16	12
2017-18	29	24	-	-	-	-	05	18	11
2018-19	49	32	01	05			11	36	13
Total=	201	141	03	14	-	-	43	127	74

18. Result Analysis

Academic Year	No. of students appearing in Examination	Distinction	First Class	Second Class	Fail
2012-13	20	13	07	-	-
2013-14	25	14	08	-	03
2014-15	26	05	08	09	04
2015-16	24	09	12	01	02
2016-17	28	06	13	07	02
2017-18	29	10	10	01	08

19. Student Progression

	No. of Students Passed	No. of Students moved to HEI	No. of Students joining service sector	No. students settled in Business	No. of Students in other sectors
2012-13	20	12	13	01	06
2013-14	22	15	12	02	10
2014-15	22	16	12	-	2
2015-16	22	14	09	-	04
2016-17	26	14	03	-	09
2017-18	21	06	05	-	10

20. Achievements of Students: 2012-13 to 2018-19

Sr. No.	Name of the Student	Year	Achievement
1	Miss. Patole Shruti Jaysing	2018-19	University Merit Scholarship
2	Miss. Pawar Monali Ramchandra	2017-18, 2018-19	INSPIRE, Govt. of India

21. Changes made in the course/curriculum during last five years:

Academic Year	Paper No./Practical	Revision/Upgrade/Change in Pattern
2012-13	-	-
2013-14	B. Sc. I (P I, II, III, IV)	New Revised Syllabus implemented

2014-15	B. Sc. II (P V, VI, VII, VIII)	New Revised Syllabus implemented
2015-16	B. Sc. III (P IX, X, XI, XII, XIII, XIV, XV, XVI)	New Revised Syllabus implemented
2016-17	-	-
2017-18	-	-
2018-19	B. Sc. I (P I, II, III, IV)	Choice based credit system implemented
2019-20	B. Sc. II (P V, VI, VII, VIII)	Choice based credit system implemented

22. Contribution of faculties in the development of curriculum

Sr. No.	Faculty	Date/ Duration	Class	Contribution	Place
1	Dr. N. S. Patil	28 Aug. 2012	B. Sc. III (Sugartech)	Chairman, Syllabus subcommittee for designing and Drafting syllabus for B. Sc. III (Sugartech)	R. P. College of Sugar technolog, Islampur
		14 Aug. 2013	B. Sc. I	Participated in training workshop on new revised syllabus for Paper I and II	Y. C. Institute of Science, Satara
		13 Aug. 2014	B. Sc. II	Participated in training workshop on new revised syllabus for Paper VII and VIII	Y. C. Institute of Science, Satara
2.	Dr. A. R. Mulik	16,17, 18 th March, 2012	B.Sc.II	Chairman, Paper Setting and Distribution of work for Practical Examination at B.Sc.II	Shivaji University, Kolhapur
		28 th February , 2014; 10 th March, 2014	B.Sc.II	Chairman, Paper Setting and Distribution of work for Practical Examination at B.Sc.II	Shivaji University, Kolhapur
		12 th March, 2015	B.Sc.II	Chairman, Paper Setting and Distribution of work for Practical Examination at B.Sc.II	Shivaji University, Kolhapur
		26 th March 2015	B.Sc.II	Chairman, Paper Setting and Distribution of work for Practical Examination at	Shivaji University, Kolhapur

				B.Sc.II	
		14 th March, 2015	B.Sc.III	Member, Paper Setting and Distribution of work for Practical Examination at B.Sc.III	Shivaji University, Kolhapur
		19 th Jan., 2016	B.Sc.III	Chairman, Paper Setting and Distribution of work for Practical Examination at B.Sc.III	Shivaji University, Kolhapur
		27 th Jan., 2016	B.Sc.III	Chairman, Paper Setting and Distribution of work for Practical Examination at B.Sc.III	Shivaji University, Kolhapur
		2 nd and 5 th Feb. 2016	B.Sc.III	Chairman, Paper Setting and Distribution of work for Practical Examination at B.Sc.III	Shivaji University, Kolhapur
		20 th March, 2017	B.Sc.II	Chairman, Paper Setting and Distribution of work for Practical Examination at B.Sc.II	Shivaji University, Kolhapur
3.	Shri. M. D. Jamdar				
		4 Oct. 2012	U. G.	One day workshop on examination reform	Shrimati Mathubai Garware Mahavidyalaya, Sangli
		06 Aug. 2014	B. Sc. II	Participated in training workshop on new revised syllabus for Paper V	Shrimant Babasaheb Deshmukh Mahavidyalaya, Aatpadi
		27 Aug. 2014	U. G.	One day workshop on examination reform and accountability	A.S. C. College, Palus
		05 Aug. 2015	B. A. / B. Sc. I	One day workshop on B. A. / B. Sc. I College university examination	Kasturbai Walchand College, Sangli
		12 Aug. 2015	B. Sc. III	Participated in training workshop on new revised syllabus for Paper XI	Willingdon College, Sangli
		11 Jan. 2018	-	One day workshop on ICT based teaching-	K. B. P. College,

				learning process	Islampur
		04 July. 2018	-	One day workshop on CBCS	Willingdon College, Sangli
		13 Aug. 2018	B. Sc. I (CBCS)	Participated in training workshop on new revised syllabus for Paper II	A.S. C. college, Ramanandnagar
		29 Aug. 2019	B. Sc. II (CBCS)	Participated in training workshop on new revised syllabus for Paper VII	Rajaram College, Kolhapur

23. Teaching Methods and Use of ICT in Teaching and Learning:

(e.g. Participative Learning, Problem Solving Method, Student Centric Method etc.)

Participative Learning: Seminar, Industrial visit etc.

Teaching methods adopted to improve student learning: • Aptitude test • Remedial classes • Basic course classes (for advanced learners) • Regular evaluation of both theory and practicals • Arranging lectures for time management • Bridge course • Maitra scheme (Mentorship): Each teacher mentor takes care of 7 to 8 students and helps in their allround personality development. • ICT training to students

24. Details of activities conducted for slow and advanced learners:

Sr. No.	Activity	Slow/Advanced Students	No. of Beneficiaries	Outcome
1	Remedial coaching	Slow learner	F. Y. Students	Increase in percentage of the marks
2	Question bank	Slow/Advanced Students	T. Y. Students	
3	Project work	Advanced Students	T. Y. Students	
4	seminar	Advanced Students	T. Y. Students	
5	Aviskar Presentation of project	Advanced Students	All Students	

25. Refresher /Orientation/Short Term Course Attended From June 2012:

Sr. No.	Name of the Faculty	Orientation/Refresher/ Short Term Courses	Institute/Place	Duration
1.	Mr. Jamdar M.D.	Special Winter School Programme in Chemistry	UGC-ASC-HRDC Pune University,Pune. Dept. Of Chem. Shivaji University,Kolhapur	11/11/2013 to 01/12/2013
2.	Mr. Jamdar M.D.	Refresher Course in Chemistry	UGC-ASC-HRDC Pune University,Pune. Dept. Of Chem. Shivaji	16/11/2015 to 06/12/2015

			University, Kolhapur	
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26. Participation/ contribution of faculty to the curricular, co-curricular, extracurricular activities:

- Academic Activities: All faculty members worked as Paper Setter, Moderator, Examiner, Supervisor at University Examination)
- Co-curricular: Industrial Visits
- Extra Curricular: extension activities Iraradication of superstition at Padvalwadi village

27. Research :

I) Research Papers Published in Journals :

Name of the Faculty	Title with Page Number	Name of the Journal	ISSN/ISBN No.	Whether Peer reviewed/Impact Factor	International/National/Local
Mr. Jamdar M.D.	New Analytical Technique for the Determination of.....thiocarbo nohydrazide PP 50-62	International Journal of Pharmaceuti cal science Invention	ISSN (online) - 2319-6718 (print)- 2319-670X	Peer reviewed	Internatio nal

II) Full papers published in Seminar/Conference Proceeding etc:-

Name of the Faculty	Title with Page Number	Name of Organizer	ISSN/ISBN No.	Theme of Seminar/ Conference	Date	International/National
Mr. Jamdar M. D.	Investigation of structural & magnetic properties of Novel Polyol Route Synthesized Lithium Ferrite	K. N.P. College, Walwa	ISBN 978-93-5235-969-1	National Conference On “ Biodiversity, Climate change & Sustainable Development	29 and 30/08/2015	National
Mr. Jamdar M. D.	Spatio- Temporal Distribution of Surface Water....An Analytical Study	K. N. P. College, Walwa	ISBN-978-81-930943-1-0	National Seminar on “ Geo-Social Perspective of Natural Resources in India”	28 and 29/07/2016	National

VI) Research Projects:

Name of the Faculty	Title of the Research Project	Funding Agency	Duration	Grant/ Amount Mobilized	Status of the Project
Mr. Jamdar M.D.	Solvent Extraction and Spectrophotometric	UGC	2010-2014	Rs. 79000/-	Completed

	determination of gold (III), Silver (I) and palladium (II) with sulphur containing ligands				
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VII) No. of Seminar/ Conference/Workshops attended: (2012-13 to 2018-19)

Sr. no.	Name of the Faculty	International	National	State	Regional
1.	Mr. Jamdar M.D.	02	05	02	08

28. SWOC Analysis (Strengths, Weaknesses, Opportunities and Challenges of the dept) :
Strengths:

- student Strength and Career opportunities in industrial sector
- The Department has well experienced and qualified teaching faculty
- Adequate number of instruments to meet requirement of university curriculum

Weakness: .

- Limited staff and funds against student strength.
- Inadequate space and instrumentation in laboratory to carry research work

Opportunities:

- to design a course like “Analytical techniques and Instrumental handling” fruitful for employment

Challenges:

- Collaboration with pharma industries for placement
- students having weak socio-economical background for taking higher education in reputed institution in India

29. Future Plan:

- To start post graduation course in Chemistry
- To make collaborations with colleges and industries
- To develop research skill among students through department level research project.
- To start the skill based short term courses

30. Any Additional Information :

All distilled water demand is fulfilled using rain water.

Sr. No.	Name of the Faculty	Designation	Signature
1	Dr. N. S. Patil	Asso. Professor	
2	Dr. A. R. Mulik	Assist. Professor	
3	Mr. M. D. Jamdar	Assist. Professor	