# **PROFILE OF CHEMISTRY DEPARTMENT**



The Chemistry department of the college was established in the year **1968**. For the first two years, department functioned in the laboratories of the Nutan Vidyalaya. A department was then shifted to Hall No. 2 of the present main building of the college, which was temporarily renovated to accommodate departmental laboratories. Department was finally shifted to the present place in **1976**.

## **LABORATORIES**

Department is now housed in a spacious building which was constructed under UGC assistance. Department sincerely want to thank UGC for its generous contribution in the construction of laboratory buildings. Departmental building comprises two laboratories, a preparation room, a store room, LPG gas stored room, cabin for Head of the department, staff room, etc.





Dimensions of our laboratories i.e. 40 X 22, provide sufficient moving space to 24 students working in a single practical batch. Our laboratories are well furnished and have all the physical facilities such as Inverter, running water, L.P.G. line, exhaust fans etc. Department has given serious consideration for its safety and thus had made provision for two fire extinguishers to meet any emergency. Department has a first aid box, which is used for providing first aid in case of minor injuries.

## **CHEMICAL EQUIPMENTS**

Department has ample stock of laboratory chemicals, glassware and other equipment required for U.G. level courses. Department has a special store room for stocking chemicals, glassware and equipments. Department rightfully boasted of having multiple copies of all the analytical instruments required for physical chemistry practical. Department is really grateful to UGC for providing financial assistance for the procurement of laboratory equipment and instruments. The infrastructure of the department is sufficient to carry out minor research projects. Beside equipments department has a stock of few charts, models, video cassettes etc. A separate list of major equipments, instruments, charts, Video cassettes is given.

Department makes its routine purchases of chemicals, glassware and equipments from the budget allowed to the department every year. A part of the departmental budget is utilized for the maintenance and repairs of laboratory instruments. Department Strictly adheres to the government norms regarding purchases such as calling quotations, making comparative statements of quotations etc.

### STAFF

Department was established in 1968, under the leadership of Dr. R. M. Kharwadkar, who was the founder head of the unit. In the current academic year, department has two full time teachers, who is assisted by one part time teacher appointed on clock hour basis. A list of faculty is given separately.

Department is manned by a full time laboratory assistant who is assisted by two laboratory attendants. Laboratory assistant is assigned the work of maintenance of stock registers, yearly stock verification, preparation work of practical's, etc. A list of staff is given separately.

### LIBRARY

Department have its own library unit. The books in our subjects are stocked in the racks of central library. The total number of chemistry titles in the central library is 1205, which includes text and reference books. Besides, the department has started its own departmental library with selective books useful for regular studies. The faculty has their own personal books which are made available to the students as per the need and demand.

- Chemistry for degree students B.Sc. I<sup>st</sup>, II<sup>nd</sup>, III<sup>rd</sup> by R.L. Madan
- Organic chemistry by Bahl and Bahl
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- Organic Spectroscopy by P.S. Kalsi
- Organic reactions by Adams
- Organic chemistry by Gilman
- Inorganic chemistry by J.D. Lee

The library of chemistry books includes books in all the branches of chemistry such as organic, physical, analytical, Industrial etc. Enrichment of our departmental library could be possible due to U.G.C. financial assistance in different plan periods.

Besides text and reference books, department has subscribed for research journals such as

- Current Science
- Indian journal of chemistry

Library has bound volumes of back numbers for the above journals. Presently, we have subscribed for Indian journal of chemistry.

Library budget allotted to the department is utilized for the procurement of books.

### Faculty Profiles: link will be provided...

http://www.nutanmahavidyalaya.com/images/facultyprofile/Re sume%20of%20Dr%20Niralwad.pdf

### AIMS AND OBJECTIVES

- 1. Basically the Chemistry including the study of Organic, Physical and Inorganic chemistry.
- 2. To create interest among the student in chemistry and make them aware of the economic importance which is needed for industrial importance
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## Report of Academic Year 2013-14: ACTIVITIES

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- Organization of Guest lectures
- Subject seminar by students
- Wall bulletin by students.
- Poster presentation for Avishkar by students.

## FORMAT-1 2013-14

#### TOTAL STUDENT STRENGTH OF THE DEPARTMENT OF CHEMISTRY

NO	CLASS		NO OF DIVISIONS		
		MALE	FEMALE	TOTAL	
01	B.Sc. FY	36	23	59	03
02	B.Sc. SY	08	20	28	01
03	B.Sc. TY	10	09	19	01

## FORMAT-2 2013-14

### NAME OF DEPARTMENT: Chemistry

NO	NAME OF THE STAFF MEMBER	QUALIFICATI ONS	DATE OF APPOINTME NT	NATURE OF APPOINTME NT	YEARS OF SERVI CE
01	Dr. K.S. Niralwad	M.Sc. , Ph.D.	10/10/2011	Permanent	02
02	Mr. P.R. Pande	M.Sc. NET	20/10/2012	Permanent	01
03	Mr. A.S. Akat	M.Sc.B.Ed.	June-2013	CHB	01

## FORMAT-3

## <u>2013-14</u>

## **NAME OF DEPARTMENT:** CHEMISTRY

NO	NAME OF	WORK LOAD						
	THE STAFF	CLASS	THEOR	PRACTICAL	ΤΟΤΑ	SIGNATURE		
	MEMBER	WISE	Y		L	OF THE		
						STAFF		
						MEMBER		
01	Dr. K.S. Niralwad	B.Sc. F.Y	02	01	18			
		B.Sc. S.Y	02	01				
		B.Sc. T.Y	02	01				
02	Mr. P.R. Pande	B.Sc. F.Y	03	01	20			
		B.Sc. S.Y	03	01				
		B.Sc. T.Y	02	01				
03	Mr. A.S. Akat	B.Sc. F.Y	01	01	08			
		B.Sc. S.Y	01	00				
		B.Sc. T.Y	02	00				

# FORMAT-4 2013-14

### DEPARTMENT OF CHEMISTRY

Name: Dr. KIRTI S. NIRALWAD

Time	Mon	Tue	Wed	Thu	Fri	Sat
10.10					B.Sc.S.Y	B.Sc.S.Y
11.50	B.Sc.T.Y.	B.Sc. T.Y.				
12.40			B.Sc.F.Y.	B.Sc.F.Y.		
2.50			B.Sc.T.Y (P)		B.Sc.F.Y (P)	
3.40	B.Sc.S.Y (P)					

### DEPARTMENT OF CHEMISTRY

Name: Mr. P.R. Pande

Time	Mon	Tue	Wed	Thu	Fri	Sat
10.10						
10.10		B.Sc.S.Y	B.Sc.S.Y	B.Sc.S.Y		
11.50					B.Sc.T.Y.	B.Sc.T.Y.
2.00	B.Sc. F.Y.	B.Sc. F.Y.			B.Sc.F.Y.	
2.50				B.Sc.T.Y	B.Sc.F.Y	
				(P)	(P)	
3.40		B.Sc.S.Y				
		(P)				

### DEPARTMENT OF CHEMISTRY

Name: Mr. A.S. Akat

Time	Mon	Tue	Wed	Thu	Fri	Sat
10.10	B.Sc.S.Y					
11.50			B.Sc.T.Y.	B.Sc.T.Y		
2.00						B.Sc.F.Y.
2.50						B.Sc.F.Y
						(P)

# FORMAT-5

## <u>2013-14</u>

## NAME OF THE DEPARTMENT: Chemistry

NO	NAME OF THE TEACHER	CLASS	8	COURSE NAME AND NUMBER	TOTAL NO OF LECTURES	DATE OF TEACHING PLAN
					ALLOTTED	COMPLETION
01	Dr. K.S. Niralwad	B.Sc.	F.Y.	Org + Inorg.	02	
		(SEM-I)		Chem (I)		
		B.Sc.	S.Y.	Org + Inorg.	02	
		(SEM-III)		Chem (VI)		
		B.Sc.	T.Y.	Org + Inorg.	02	
		(SEM-V)		Chem (XII)		
		B.Sc.	F.Y.	Org + Inorg.	02	
		(SEM-II)		Chem (III)		
		B.Sc.	S.Y.	Org + Inorg.	02	
		(SEM-IV)		Chem (VIII)		
		B.Sc.	T.Y.	Org + Inorg.	02	
		(SEM-VI)		Chem (XIV)		
02	Mr. P.R. Pande	B.Sc.	F.Y.	Phy + Inorg.	03	
		(SEM-I)		Chem (II)		
		B.Sc.	S.Y.	Phy + Inorg.	03	
		(SEM-III)		Chem (VII)		
		B.Sc.	T.Y.	Phy + Inorg.	02	
		(SEM-V)		Chem (XIII)		
		B.Sc.	F.Y.	Phy + Inorg.	03	

		(SEM-II)		Chem (IV)		
		B.Sc.	S.Y.	Phy + Inorg.	03	
		(SEM-IV)		Chem (IX)		
		B.Sc.	T.Y.	Phy + Inorg.	02	
		(SEM-VI)		Chem (XV)		
03	Mr. A.S. Akat	B.Sc.	F.Y.	Inorg. Chem (	01	
		(SEM-I)		I &II)		
		B.Sc.	S.Y.	Inorg. Chem	01	
		(SEM-III)		(VI &VII)		
		B.Sc.	T.Y.	Inorg. Chem	02	
		(SEM-V)		(XII & XIII)		
		B.Sc.	F.Y.	Inorg. Chem	01	
		(SEM-II)		(III & IV)		
		B.Sc.	S.Y.	Inorg. Chem	01	
		(SEM-IV)		(VIII & IX)		
		B.Sc.	T.Y.	Inorg. Chem	02	
		(SEM-VI)		(XIV & XV)		

### 2013-14

### NAME OF THE DEPARTMENT: CHEMISTRY

NAME OF THE	CLASS	THEORY COURSE NAME & NUMBER	AVAILABL E	CONDUCTED LECTURES	% CONDUCTED
TEACHER			LECTURES		
Dr. K. S.	B.Sc.	Organic +	45 per	45 per course	100%
Niralwad	F. Y.,S.Y,	Inorganic	course		
	T.Y	Chemistry –[			
		I,III,VI,VIII,XII,XIV]			
Mr. P.R.	B.Sc.	Physical +	45 per	45 per course	100%
Pande	F. Y.,S.Y,	Inorganic	course		
	T.Y	Chemistry –[			
		II,IV,VII,IX,XIII,XV]			
		Total courses:			
		lectures:			

### 2013-14

#### NAME OF THE DEPARTMENT : CHEMISTRY

Class	Practical	Available	Conducted	% conducted
	course			
B.Sc. F.Y	V	120	120	100%
B.Sc. S.Y	X & XI	240	240	100%
B.Sc. T.Y	XVI & XVII	240	240	100%
	Total courses:			
	practical:			

## FORMAT-8

## 2013-14

### **Departmental Documentation Performa:-**

## Collage Name:- \_\_Nutan Mahavidyalaya, Selu

No.	Name of the Teacher		Teachers			
		C.L.	D.L	M.L	Any other	Signature
01	Dr. K.S. Niralwad	09	14			
02	Mr. P.R. Pande	12	11			

## 2013-14

# **Departmental Documentation Performa:-**

## Collage Name:- Nutan Mahavidyalaya Selu

Name of the Activity :					
Date	Faculty	Department / Committee	Coordinator Name @ Phone no.		
25/08/2013	Science	Science association	Dr. V.H. Panchal		
Time	Venue	Activity for class / group Expected student number	Nature of the Activity:		
8:30 p.m.	Botany Lab	Wall Bulletin	Co-curricular		

## Support / Assistance:\_\_\_\_-

Brief Information about the Activity (Citerion no- ):

Topic/Subject of the Activity	B. Sc. S.Y. Students Presented a <b>Wall Bulletin</b> on dated 15 Aug 2013			
Objective for conducting the activity.	• graduate students with exposure to a variety of research projects and activities in order to enrich their academic experience			
	•Department members with an opportunity to familiarize themselves with all graduate students within the department and learn about each student's research activities.			
	• An opportunity for graduate students to develop skills in presentation and discussion of research topics in a public forum. Seminars will be conducted on a continuing basis appropriate to the complement of students within the department			
Methodology				
Outcome	• Developing students as successful professionals.			
	• Developing students as effective researchers.			
	• Maintaining and enhancing the overall quality of the students.			

Recommendations from:

Date of Proposal Submission: Proofs attached: letter/ student list of participation / certificate / document/ **photos** / any other.





Name of the Activity :					
Date	Faculty	Department / Committee	Coordinator Name @ Phone no.		
27/08/2013	Science	Science association	Dr. Kirti Niralwad		
Time	Venue	Activity for class / group Expected student number	Nature of the Activity:		
2:00 p.m.	Hal No. 22	Seminar	Co-curricular		

Support / Assistance:\_\_\_\_\_-

Brief Information about the Activity (Citerion no-):

Topic/Subject of the Activity	Seminar of B.Sc. T.Y.
Objective for conducting the activity.	<ul> <li>To help students develop professional skills and attitudes of scientists.</li> <li>To address issues of importance to scientists that typically do not fit well into traditional chemistry courses.</li> <li>To work in conjunction with academic advisors to help students appreciate the interconnections in the chemistry curriculum and develop and execute a plan to successfully complete graduation requirements in a timely fashion.</li> <li>To introduce ideas or topics of growing importance related to chemistry that are not typically covered in General Chemistry.</li> </ul>
Methodology	
Outcome	

Recommendations from:

Date of Proposal Submission: Proofs attached: letter/ **student list of participation** / certificate / **document**/ photos / any other.





Name of the Activity :					
Date	Faculty	Department / Committee	Coordinator Name @ Phone no.		
22/09/2013	Science	Science association	Dr. Kirti Niralwad		
Time	Venue	Activity for class / group Expected student number	Nature of the Activity:		
2:00 p.m.	Hal No. 22	Guest Lecture	Co-curricular		

### Support / Assistance:\_\_\_\_\_-

Brief Information about the Activity

Topic/Subject of the Activity	<b>Guest Lecture</b> on Mathematical concepts in chemistry & SI
Objective for conducting the activity.	<ul> <li>Students have an opportunity to learn something new from resource person</li> <li>It supports subjects you may not khow a lot about</li> <li>Create amazing community relations</li> <li>Give Professionals a chance to connect with students.</li> </ul>
Methodology	
Outcome	

Recommendations from:

Date of Proposal Submission: Proofs attached: letter/ **student list of participation** / certificate / **document**/ photos / any other.



# Collage Name:- Nutan Mahavidyalaya Selu

Name of the Activity :					
Date	Faculty	Department / Committee	Coordinator Name @ Phone no.		
18/10/2013	Science	Science association	Dr. Kirti Niralwad		
Time	Venue	Activity for class / group Expected student number	Nature of the Activity:		
11:00 p.m.	Late. Saw. Kamaltai Jamkar Mahila Mahavidyalaya, Parbhani	Avishkar Research Festival	Co-curricular		

Support / Assistance:\_\_\_\_

Brief Information about the Activity (Citerion no- ):

\_\_\_

Topic/Subject of the Activity	Poster Presentation
Objective for conducting the activity.	• graduate students with exposure to a variety of research projects and activities in order to enrich their academic experience
	•Department members with an opportunity to familiarize themselves with all graduate students within the department and learn

	about each student's research activities.
	• An opportunity for graduate students to develop skills in presentation and discussion of research topics in a public forum. Seminars will be conducted on a continuing basis appropriate to the complement of students within the department
Methodology	
Outcome	<ul> <li>Developing students as successful professionals.</li> <li>Developing students as effective researchers.</li> </ul>
	• Maintaining and enhancing the overall quality of the students.

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Date of Proposal Submission:

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# 2013-14

Teaching Plan.

Chemistry
Science
Dr. Kirti S. Nralwad
Chemistry

	THEORY					
Term I /						
Sr.N o	Class	Subject	Month	Topic covered	Topics to be covered	
	B.SC.F.Y.	Organic + Inorganic	JULY	Nomenclature of Organic Compounds	Nomenclature of Organic Compounds	
		Chemistry (I)	AUG	Basic Concepts In Organic Chemistry	Basic Concepts In Organic Chemistry	
			SEP	Alkanes and Cycloalkanes	Alkanes and Cycloalkanes	
			ОСТ	Alkenes, Dienes and Alkynes	Alkenes, Dienes and Alkynes	
			NOV	Alcohols and Epoxides	Alcohols and Epoxides	
	B.Sc.S.Y.	B.Sc.S.Y. Organic + Inorganic Chemistry (VI)	JULY	Aromatic Carbonyl Compounds	Aromatic Carbonyl Compounds	
			AUG	Polymers	Polymers	
			SEP	Stereochemistry	Stereochemistry	
			OCT	Organic Synthesis via Enolates	Organic Synthesis via Enolates	
			NOV	Theory of Qualitative Analysis	Theory of Qualitative Analysis	
	B.Sc.T.Y.	Organic + Inorganic	JULY	Heterocyclic Compounds	Heterocyclic Compounds	
		(XII)	AUG	Six-membered heterocyclics	Six-membered heterocyclics	
			SEP	Synthetic drugs and dyes	Synthetic drugs and dyes	
			OCT	Alkaloids, Vitamins and Pesticides	Alkaloids, Vitamins and Pesticides	
		NOV	Hard And Soft Acids And Bases	Hard And Soft Acids And Bases		
THEORY TERM II						

Sr.N o	Class	Subject	Month	Topic covered	Topics to be covered
	B.SC.F.Y.	Organic + Inorganic Chemistry (III)	DEC	Aromatic Hydrocarbons and Aromaticity	Aromatic Hydrocarbons and Aromaticity
			JAN	Phenols & Haloalkene and Haloarene	Phenols & Haloalkene and Haloarene
			FEB	Carboxylic Acid Derivatives	Carboxylic Acid Derivatives
			MARCH	Study of P-block elements	Study of P-block elements
	B.Sc.S.Y.	Organic + Inorganic Chemistry (VIII)	DEC	Carbohydrates & Organic compounds of nitrogen	Carbohydrates & Organic compounds of nitrogen
			JAN	Heterocyclic Compounds	Heterocyclic Compounds
			FEB	Polynuclear Hydrocarbon	Polynuclear Hydrocarbon
			MARCH	Chemistry of Transition series elements	Chemistry of Transition series elements
	B.Sc.T.Y.	Organic + Inorganic Chemistry (XIV)	DEC	U. V. & I.R. Spectroscopy	U. V. & I.R. Spectroscopy
			JAN	NMR – Spectroscopy	NMR – Spectroscopy
			FEB	Amino acids, Peptides and Proteins	Amino acids, Peptides and Proteins
			MARCH	Synthetic Polymers and Molecular Rearrangements	Synthetic Polymers and Molecular Rearrangements

<b>PRACTICALS</b> (In case of Science)					
Sr.N o	Class	Subject	Month	Topic covered	Topics to be covered
	B.SC.F.Y.	Organic + Inorganic + Physical Chemistry	June- March	Laboratory Course-I	Laboratory Course-I
	B.SC.S.Y.	Organic + Inorganic Chemistry	June- March	Laboratory Course-II	Laboratory Course-II

	B.SC.T.Y. Organic + Inorganic Chemistry		June- March	Laboratory Course-IV		Laboratory Course-IV		ory IV
			<b>FORMA</b>	<u>T-14</u>				
	2013-14							
		A	cademic Ye	ear				
Student 107	t Strenght of Depa	artment :	<b>F.Y</b> . :-60	S.Y.:-	28	Т.Ү.:-	19	Total :-
F.Y. B.S	Sc = Practical Bate	ches :-	03					

S.Y. B.SC = Practical Batches:-	01

Total Departmental w	vorkload = 46
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### Name of the Teacher : Dr. Kirti S. Niralwad

Sr.N o	Class	Lectures	Practica ls	To worl	otal kload	Extra workload
1	F.Y. B.Sc	02	01	06		
2	S.Y. B.Sc	02	02	10	20	02
3	T.Y. Bsc	02	01	06		

### Name of the Teacher : Mr.Pande .P.R.

Sr.N o	Class	Lectures	Practica ls	Total workload		Extra workload
1	F.Y. B.Sc	03	01	07		
2	S.Y. B.Sc	03	02	07	20	
3	T.Y. Bsc	02	01	06		

## 2013-14

### **Academic Year**

Faculty	Science				
Department	Chemistry				
Name of the Teacher	Dr. Kirti S. Niralwad				
Total Workload	18	Lectures (06)	Practical's (03)		

Sr. No	Class	Lectures	Practical's	Total workload	Extra workload
1	B.Sc. F.Y.	02	01	06	
2	B.Sc. S.Y.	02	01	06	
3	B.Sc. T.Y.	02	01	06	
	Total			18	00

Name of the Teacher Mr. P.R.Pande

Total Workload \_\_\_\_\_20Lectures (06)Practical's (03)

Sr. No	Class	Lectures	Practical's	Total workload	Extra workload
1	B.Sc. F.Y.	03	01	07	
2	B.Sc. S.Y.	03	01	07	
3	B.Sc. T.Y.	02	01	06	
	Total			20	00

Name of the Teacher

Mr. A.S.Akat

Total Workload \_\_\_\_\_08Lectures (04)Practical's (01)

Sr. No	Class	Lectures	Practical's	Total workload	Extra workload
1	B.Sc. F.Y.	01	01	05	
2	B.Sc. S.Y.	01	00	01	
3	B.Sc. T.Y.	02	00	02	
	Total			08	00



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### AIMS AND OBJECTIVES

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- 2. To create interest among the student in chemistry and make them aware of the economic importance which is needed for industrial importance
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- 1. To organize conferences and seminars in the future.
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- Subject seminar by students
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- Poster presentation for Avishkar by students.

#### FORMAT-1

### **2014-15**

#### TOTAL STUDENT STRENGTH OF THE DEPARTMENT OF CHEMISTRY

NO	CLASS		NO OF DIVISIONS		
		MALE	FEMALE	TOTAL	
01	B.Sc. FY	28	20	48	02
02	B.Sc. SY	21	16	36	01
03	B.Sc. TY	07	18	25	01

### <u>2014-15</u>

### **NAME OF DEPARTMENT:** Chemistry

NO	NAME OF THE STAFF MEMBER	QUALIFICAT IONS	DATE OF APPOINTM ENT	NATURE OF APPOINTM ENT	YEARS OF SERVI CE
01	Dr. K.S.	M.Sc. , Ph.D.	10/10/2011	Permanent	03
	Niralwad				
02	Mr. P.R. Pande	M.Sc. NET	20/10/2012	Permanent	02
03	Mr. V.P. Kharat	M.Sc.B.Ed.	June-2014	CHB	01

### FORMAT-3

2014-15

### **NAME OF DEPARTMENT:** CHEMISTRY

NO	NAME OF	WORK LOAD						
	THE STAFF MEMBER	CLASS WISE	THEORY	PRACTICAL	TOTAL	SIGNATURE OF THE STAFF MEMBER		
01	Dr. K.S.	B.Sc. F.Y	02	01	18			
	Miraiwau	B.Sc. S.Y	02	01				
		B.Sc. T.Y	02	01				
02	Mr. P.R.	B.Sc. F.Y	01	01	21			
	Fande	B.Sc. S.Y	02	02				
		B.Sc. T.Y	02	01				
03	Mr. V.P.	B.Sc. F.Y	03	00	11			
	niarat	B.Sc. S.Y	02	01				
		B.Sc. T.Y	02	00				

### FORMAT- 2014-15

### DEPARTMENT OF CHEMISTRY

### Name: Dr. KIRTI S. NIRALWAD

Day	9:20	10:10	11:00	2:50-5:20
Monday				S.Y.(S1batch Pra.) Lab 1(Paper X)
Tuesday	F.Y.			
Wednesday		S.Y.	S.Y.	T.Y.(T1batch Pra.) Lab 1(Paper XVI)
Thursday		Т.Ү.		
Friday		Т.Ү.		F.Y. (F1 Batch Pra.) Lab 1
Saturday	F.Y.			

### DEPARTMENT OF CHEMISTRY

### Name: Mr. P.R. Pande

Day	9:20	10:10	11:00	2:50-5:20
Monday				S.Y.(S <sub>2</sub> batch Pra.) Lab 2(Paper XI)
Tuesday				S.Y.(S1batch Pra.) Lab 2(Paper XI)
Wednesday		Т.Ү.		
Thursday		S.Y.	S.Y.	T.Y.(T <sub>1</sub> batch Pra.)
Friday	F.Y.			
Saturday		T.Y.		F.Y. (F2 Batch Pra.) Lab 1

### DEPARTMENT OF CHEMISTRY

### Name: Mr. V.P. Kharat

Day	9:20	10:10	11:00	2:50-5:20
Monday	F.Y.	T.Y.		
Tuesday		T.Y.		S.Y.(S <sub>2</sub> batch Pra.) Lab
				2(Paper X)
Wednesday				F.Y.
Thursday				F.Y.
Friday			S.Y.	
Saturday			S.Y.	

### FORMAT-5 2014-15

### NAME OF THE DEPARTMENT: Chemistry

NO	NAME OF THE TEACHER		CLAS	SS	COURSE NAME AND NUMBER	TOTAL NO OF LECTURES ALLOTTED	DATE OF TEACHING PLAN COMPLETION
01	Dr.	K.S.	B.Sc.	F.Y.	Org + Inorg.	02	
	Niralwad	1	(SEM-I)		Chem (l)		
	Miaiwau		B.Sc.	S.Y.	Org + Inorg.	02	
			(SEM-II	I)	Chem (VI)		
			B.Sc.	T.Y.	Org + Inorg.	02	
			(SEM-V	)	Chem (XII)		
			B.Sc.	F.Y.	Org + Inorg.	02	
			(SEM-II	)	Chem (III)		
			B.Sc.	S.Y.	Org + Inorg.	02	
			(SEM-IV	7)	Chem (VIII)		
			B.Sc.	T.Y.	Org + Inorg.	02	
			(SEM-V	I)	Chem (XIV)		
02	Mr.	P.R.	B.Sc.	F.Y.	Phy +	01	
	D 1.		(SEM-I)		Inorg.		
	Pande				Chem (II)		
		B.Sc. S.Y. (SEM-III)	Phy + Inorg. Chem (VII)	02			
----	-------------------	-------------------------	--------------------------------	----	--		
		(SEM-V)	Inorg. Chem (XIII)	02			
		B.Sc. F.Y. (SEM-II)	Phy + Inorg. Chem (IV)	01			
		B.Sc. S.Y. (SEM-IV)	Phy + Inorg. Chem (IX)	02			
		B.Sc. T.Y. (SEM-VI)	Phy + Inorg. Chem (XV)	02			
03	Mr.V.P. Kharat	B.Sc. F.Y. (SEM-I)	Inorg. Chem ( I &II)	03			
		B.Sc. S.Y. (SEM-III)	Inorg. Chem (VI &VII)	02			
		B.Sc. T.Y. (SEM-V)	Inorg. Chem (XII & XIII)	02			
		B.Sc. F.Y. (SEM-II)	Inorg. Chem (III & IV)	03			
		B.Sc. S.Y. (SEM-IV)	Inorg. Chem (VIII & IX)	02			
		B.Sc. T.Y. (SEM-VI)	Inorg. Chem (XIV & XV)	02			

## FORMAT-6 2014-15

NAME	CLASS	THEORY	AVAILABL	CONDUCTE	%
OF THE		COURSE	E	D	CONDUCTE
TEACHE		NAME &	LECTURE	LECTURES	D
R		NUMBER	S		
Dr. K. S.	B.Sc.	Organic +	45 per	45 per	100%
Niralwad		Inorganic	course	course	
	F.Y.,S.Y	Chemistry –[			
	, T.Y	I,III,VI,VIII,XII,			
		XIV]			
Mr. P.R.	B.Sc.	Physical +	45 per	45 per	100%
Pande	F.Y.,S.Y	Inorganic	course	course	
	, T.Y	Chemistry –[			
		II,IV,VII,IX,XIII,			
		XV]			
		Total courses:			
		lectures:			

## FORMAT-7 2014-15

Class	Practical	Available	Conducted	% conducted
	course			
B.Sc. F.Y	V	120	120	100%
B.Sc. S.Y	X & XI	240	240	100%
B.Sc. T.Y	XVI & XVII	240	240	100%
	Total courses:			
	practical:			

## FORMAT-8 2014-15

No.	Name of the Teacher		Leave taken			Teachers
		C.L.	D.L	M.L	Any other	Signature
01	Dr. K.S. Niralwad	08	17			
02	Mr. P.R. Pande	12	22			

#### FORMAT-9

#### <u>2014-15</u>

#### **Departmental Documentation Performa:-**

### Collage Name:- Nutan Mahavidyalaya Selu

Name of the Act	Name of the Activity :					
Date	Faculty	Department / Committee	Coordinator Name @ Phone no.			
15/08/2014	Science	Science association	Dr. V.H. Panchal			
Time	Venue	Activity for class / group Expected student number	Nature of the Activity:			
8:30 p.m.	Botany Lab	Wall Bulletin	Co-curricular			

Support / Assistance:\_\_\_\_\_-

Brief Information about the Activity (Citerion no-):

Topic/Subject of the Activity	B. Sc. T.Y. Students Presented a Wall Bulletin on dated 15 Aug 2014
Objective for conducting the activity.	• graduate students with exposure to a variety of research projects and activities in order to enrich their academic experience
	•Department members with an opportunity

	<ul> <li>to familiarize themselves with all graduate students within the department and learn about each student's research activities.</li> <li>An opportunity for graduate students to develop skills in presentation and discussion of research topics in a public forum. Seminars will be conducted on a continuing basis appropriate to the</li> </ul>
	department of students within the
Methodology	
Outcome	<ul> <li>Developing students as successful professionals.</li> <li>Developing students as effective</li> </ul>
	researchers.
	• Maintaining and enhancing the overall quality of the students.

Recommendations from:

Date of Proposal Submission:

Proofs attached: letter/ student list of participation / certificate / document/ **photos** / any other.





## FORMAT-13 2014-15

Teaching Plan.

Department: Faculty:-Name of the Faculty: Subject :

Chemistry Science Dr. Kirti S. Nralwad Chemistry

THEORY Term I / Sr.N Subject Topic covered Topics to be Class Month covered 0 B.SC.F.Y. Organic + JULY Nomenclature Nomenclature Inorganic of Organic of Organic Compounds Compounds Chemistr y (I) Basic Concepts AUG Basic Concepts In In Organic Organic Chemistry Chemistry

			SEP	Alkanes and Cycloalkanes	Alkanes and Cycloalkanes
			OCT	Alkenes, Dienes and Alkynes	Alkenes, Dienes and Alkynes
			NOV	Alcohols and Epoxides	Alcohols and Epoxides
	B.Sc.S.Y.	Organic + Inorganic Chemistr	JULY	Aromatic Carbonyl Compounds	Aromatic Carbonyl Compounds
		y (VI)	AUG	Polymers	Polymers
			SEP	Stereochemistr y	Stereochemistr y
			OCT	Organic Synthesis via Enolates	Organic Synthesis via Enolates
			NOV	Theory of Qualitative Analysis	Theory of Qualitative Analysis
	B.Sc.T.Y.	Organic + Inorganic	JULY	Heterocyclic Compounds	Heterocyclic Compounds
		Chemistr y (XII)	AUG	Six-membered heterocyclics	Six-membered heterocyclics
			SEP	Synthetic drugs and dyes	Synthetic drugs and dyes
			ОСТ	Alkaloids, Vitamins and Pesticides	Alkaloids, Vitamins and Pesticides
			NOV	Hard And Soft Acids And Bases	Hard And Soft Acids And Bases
TERN	A II		THEORY	7	
Sr.N o	Class	Subject	Month	Topic covered	Topics to be covered
	B.SC.F.Y.	Organic +	DEC	Aromatic	Aromatic

	Inorganic Chemistr y (III)		Hydrocarbons and Aromaticity	Hydrocarbons and Aromaticity
		JAN	Phenols & Haloalkene and Haloarene	Phenols & Haloalkene and Haloarene
		FEB	Carboxylic Acid Derivatives	Carboxylic Acid Derivatives
		MARCH	Study of P- block elements	Study of P- block elements
B.Sc.S.Y.	Organic + Inorganic Chemistr y (VIII)	DEC	Carbohydrates & Organic compounds of nitrogen	Carbohydrates & Organic compounds of nitrogen
		JAN	Heterocyclic Compounds	Heterocyclic Compounds
		FEB	Polynuclear Hydrocarbon	Polynuclear Hydrocarbon
		MARCH	Chemistry of Transition series elements	Chemistry of Transition series elements
B.Sc.T.Y.	Organic + Inorganic Chemistr y (XIV)	DEC	U. V. & I.R. Spectroscopy	U. V. & I.R. Spectroscopy
		JAN	NMR – Spectroscopy	NMR – Spectroscopy
		FEB	Amino acids, Peptides and Proteins	Amino acids, Peptides and Proteins
		MARCH	Synthetic Polymers and Molecular Rearrangemen	Synthetic Polymers and Molecular Rearrangement

	ts	S	
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	<b>PRACTICALS</b> (In case of Science)					
Sr.N o	Class	Subject	Month	Topic covered	Topics to be covered	
	B.SC.F.Y.	Organic + Inorganic + Physical Chemistr y	June- March	Laboratory Course-I	Laboratory Course-I	
	B.SC.S.Y.	Organic + Inorganic Chemistr y	June- March	Laboratory Course-II	Laboratory Course-II	
	B.SC.T.Y.	Organic + Inorganic Chemistr y	June- March	Laboratory Course-IV	Laboratory Course-IV	

## FORMAT-14 2014-15

### Academic Year

Student Strenght of Department : <b>Total :-</b> 119	<b>F.Y</b> . :-	48	S.Y.:-	36	Т.Ү.:-	25
F.Y. B.Sc = Practical Batches :-	02					
S.Y. B.SC = Practical Batches:-	02					
Total Departmental workload =	50					

### Name of the Teacher : Dr. Kirti S. Niralwad

Sr.N o	Class	Lectures	Practicals	To wor	otal kload	Extra workload
1	F.Y. B.Sc	02	01	06		
2	S.Y. B.Sc	02	01	06	18	00
3	T.Y. Bsc	02	01	06		

Name of the Teacher : Mr.Pande .P.R.

Sr.N o	Class	Lectures	Practicals	To wor	otal kload	Extra workload
1	F.Y. B.Sc	02	01	06		
2	S.Y. B.Sc	02	02	10	21	01
3	T.Y. Bsc	01	01	05		

## FORMAT-15 2014-15

Faculty	Science		
Department	Chemistry		
Name of the Teacher	Dr. Kirti S. Niralwad		
Total Workload (04)	22	Lectures (06)	Practical's

Sr. No	Class	Lectures	Practical's	Total workload	Extra workload
1	B.Sc. F.Y.	02	01	06	
2	B.Sc. S.Y.	02	01	06	
3	B.Sc. T.Y.	02	02	10	
	Total			22	04

Faculty	Science		
Department	Chemistry		
Name of the Teacher	Mr. P.R.Pande		
Total Workload (04)	21	Lectures (05)	Practical's

Sr. No	Class	Lectures	Practical's	Total workload	Extra workload
1	B.Sc. F.Y.	01	01	05	
2	B.Sc. S.Y.	02	02	10	
3	B.Sc. T.Y.	02	01	06	
	Total			21	00

Faculty	Science		
Department	Chemistry		
Name of the Teacher	Mr. V.P.Kharat		
Total Workload (01)	11	Lectures (07)	Practical's

Sr. No	Class	Lectures	Practical's	Total workload	Extra workload
1	B.Sc. F.Y.	03	00	03	
2	B.Sc. S.Y.	02	01	06	
3	B.Sc. T.Y.	02	00	02	
	Total			11	00



**PROFILE OF CHEMISTRY DEPARTMENT** 

The Chemistry department of the college was established in the year **1968**. For the first two years, department functioned in the laboratories of the Nutan Vidyalaya. A department was then shifted to Hall No. 2 of the present main building of the college, which was temporarily renovated to accommodate departmental laboratories. Department was finally shifted to the present place in **1976**.

# LABORATORIES

Department is now housed in a spacious building which was constructed under UGC assistance. Department sincerely want to thank UGC for its generous contribution in the construction of laboratory buildings.

Departmental building comprises two laboratories, a preparation room, a store room, LPG gas stored room, cabin for Head of the department, staff room, etc.











Dimensions of our laboratories i.e. 40 X 22, provide sufficient moving space to 24 students working in a single practical batch. Our laboratories are well furnished and have all the physical facilities such as Inverter, running water, L.P.G. line, exhaust fans etc. Department has given serious consideration for its safety and thus had made provision for two fire extinguishers to meet any emergency. Department has a first aid box, which is used for providing first aid in case of minor injuries.

#### CHEMICAL EQUIPMENTS

Department has ample stock of laboratory chemicals, glassware and other equipment required for U.G. level courses. Department has a special store room for stocking chemicals, glassware and equipments. Department rightfully boasted of having multiple copies of all the analytical instruments required for physical chemistry practical. Department is really grateful to UGC for providing financial assistance for the procurement of laboratory equipment and instruments. The infrastructure of the department is sufficient to carry out minor research projects. Beside equipments department has a stock of few charts, models, video cassettes etc. A separate list of major equipments, instruments, charts, Video cassettes is given.

Department makes its routine purchases of chemicals, glassware and equipments from the budget allowed to the department every year. A part of the departmental budget is utilized for the maintenance and repairs of laboratory instruments. Department Strictly adheres to the government norms regarding purchases such as calling quotations, making comparative statements of quotations etc.

#### STAFF

Department was established in 1968, under the leadership of Dr. R. M. Kharwadkar, who was the founder head of the unit. In the current academic year, department has two full time teachers, who is assisted by one part time teacher appointed on clock hour basis. A list of faculty is given separately.

Department is manned by a full time laboratory assistant who is assisted by two laboratory attendants. Laboratory assistant is assigned the work of maintenance of stock registers, yearly stock verification, preparation work of practical's, etc. A list of staff is given separately.

#### LIBRARY

Department have its own library unit. The books in our subjects are stocked in the racks of central library. The total number of chemistry titles in the central library is 1205, which includes text and reference books. Besides, the department has started its own departmental library with selective books useful for regular studies. The faculty has their own personal books which are made available to the students as per the need and demand.

- Chemistry for degree students B.Sc. I<sup>st</sup>, II<sup>nd</sup>, III<sup>rd</sup> by R.L. Madan
- Organic chemistry by Bahl and Bahl
- Principle of Inorganic Chemistry by Puri, Sharma &Kalia.
- Essential of physical chemistry by Bahl, Bahl and Tuli
- Organic Spectroscopy by P.S. Kalsi

- Organic reactions by Adams
- Organic chemistry by Gilman
- Inorganic chemistry by J.D. Lee

The library of chemistry books includes books in all the branches of chemistry such as organic, physical, analytical, Industrial etc. Enrichment of our departmental library could be possible due to U.G.C. financial assistance in different plan periods.

Besides text and reference books, department has subscribed for research journals such as

- Current Science
- Indian journal of chemistry

Library has bound volumes of back numbers for the above journals. Presently, we have subscribed for Indian journal of chemistry.

Library budget allotted to the department is utilized for the procurement of books.

### Faculty Profiles: link will be provided...

http://www.nutanmahavidyalaya.com/images/facultyprofile/ Resume%20of%20Dr%20Niralwad.pdf

#### AIMS AND OBJECTIVES

- 1. Basically the Chemistry including the study of Organic, Physical and Inorganic chemistry.
- 2. To create interest among the student in chemistry and make them aware of the economic importance which is needed for industrial importance
- 3. To create among the student regarding self employment and generate of sources of the income through chemical science.
- 4. To promote and create the student for higher education and research aptitude.
- 5. To create Inspiration and motivation to students.
- 6. To provide students with the latest technologies and learning aids.
- 7. To encourage the students for creative writing.
- 8. To develop research faculties and research discipline in the students.

### Objective

- 1. To organize conferences and seminars in the future.
- 2. To connect the faculty and all the students through latest devices of information technologies
- 3. To arrange more and more guest lecturers in the department.
- 4. To enrich the reservoir of e-content
- 5. To encourage the students for wall bulletin, seminar and group discussion.

# Report of Academic Year 2013-14: ACTIVITIES

Since department runs only UG level courses, minor activity of the department is teaching, obviously research contribution of the department is marginal. To supplement classroom teaching activity, department actively participate in organizing following co-curricular activities.

- Organization of Guest lectures
- Subject seminar by students
- Wall bulletin by students.
- Poster presentation for Avishkar by students.

### FORMAT-1

#### <u>2015-16</u>

### TOTAL STUDENT STRENGTH OF THE DEPARTMENT OF CHEMISTRY

NO	CLASS	STUDENT STREGTH			NO OF DIVISIONS
		MALE	FEMALE	TOTAL	
01	B.Sc. FY	34	24	58	02
02	B.Sc. SY	10	09	19	01
03	B.Sc. TY	17	14	31	01

## FORMAT-2

### <u>2015-16</u>

### NAME OF DEPARTMENT: Chemistry

NO	NAME OF THE STAFF	QUALIFICA TIONS	DATE OF APPOINTME	NATURE OF	YEARS OF
	MEMBER		NT	APPOINTM ENT	SERVI CE
01	Dr. K.S.	M.Sc. ,	10/10/2011	Permanent	04
	Niralwad	Ph.D.			
02	Mr. P.R. Pande	M.Sc. NET	20/10/2012	Permanent	03
03	Mr.M.S. Rathod	M.Sc.B.Ed.	June-2015	CHB	01

#### FORMAT-3

<u>2015-16</u>

### **NAME OF DEPARTMENT:** CHEMISTRY

NO	NAME OF	WORK LOAD					
	THE STAFF MEMBER	CLASS WISE	THEORY	PRACTICAL	TOTAL	SIGNATURE OF THE STAFF MEMBER	
01	Dr. K.S.	B.Sc. F.Y	02	01	18		
	manwau	B.Sc. S.Y	02	01			
		B.Sc. T.Y	02	01			
02	Mr. P.R.	B.Sc. F.Y	02	01	20		
	Fande	B.Sc. S.Y	04	01			
		B.Sc. T.Y	02	01			
03	Mr. M.S.	B.Sc. F.Y	02	00	04		
	Ratilou	B.Sc. S.Y	00	00			
		B.Sc. T.Y	02	00			

### FORMAT- 4

### <u>2015-16</u>

### DEPARTMENT OF CHEMISTRY

### Name: Dr. KIRTI S. NIRALWAD

Day	10:10	11:00	2:50-6:10
Monday			S.Y.(S1batch Pra.) (Paper X)
Tuesday		F.Y.	
Wednesday		S.Y.	T.Y.(T1batch Pra.) Lab 1(Paper XVI)
Thursday	T.Y.	S.Y.	
Friday	T.Y		F.Y. (F1 Batch Pra.) Lab 1
Saturday		F.Y.	

#### DEPARTMENT OF CHEMISTRY

### Name: Mr. P.R. Pande

Day	10:10	11:00	2:50-6:10
Monday	Т.Ү.		
Tuesday	T.Y.		S.Y.(S1batch Pra.) Lab (Paper XI)
Wednesday	S.Y.		
Thursday	S.Y.	F.Y.	T.Y.(T <sub>1</sub> batch Pra.) Lab 2(Paper XVII)
Friday		F.Y.	
Saturday		S.Y.	F.Y. (F2 Batch Pra.) Lab 1

#### DEPARTMENT OF CHEMISTRY

#### Name: Mr. M.S. Rathod

Day	10:10	11:00
Monday		F.Y.
Wednesday	T.Y.	F.Y.
Friday		S.Y.

### FORMAT-5 2015-16

#### NAME OF THE DEPARTMENT: Chemistry

NO	NAME OF	CLASS	COURSE	TOTAL NO	DATE OF
	THE		NAME AND	UF I FOTUDES	DIAN
	IEACHER		NUMBER	ALLOTTED	COMPLETION
01	Dr. K.S.	B.Sc. F.Y.	Org + Inorg.	02	
	Ninoland	(SEM-I)	Chem (I)		
	Miraiwad	B.Sc. S.Y.	Org + Inorg.	02	
		(SEM-III)	Chem (VI)		
		B.Sc. T.Y.	Org + Inorg.	02	
		(SEM-V)	Chem (XII)		
		B.Sc. F.Y.	Org + Inorg.	02	
		(SEM-II)	Chem (III)		
		B.Sc. S.Y.	Org + Inorg.	02	
		(SEM-IV)	Chem (VIII)		
		B.Sc. T.Y.	Org + Inorg.	02	
		(SEM-VI)	Chem (XIV)		
02	Mr. P.R.	B.Sc. F.Y.	Phy +	02	
	Pande	(SEM-I)	Inorg.		
	i unuc		Chem (II)		
		B.Sc. S.Y.	Phy +	04	
		(SEM-III)	Inorg.		
			Chem (VII)		
		B.Sc. T.Y.	Phy +	02	
		(SEM-V)	Inorg.		
			Chem (XIII)		
		B.Sc. F.Y.	Phy +	02	
		(SEM-II)	Inorg.		

			Chem (IV)	
		B.Sc. S.Y.	Phy +	04
		(SEM-IV)	Inorg. Chem (IX)	
		B.Sc. T.Y. (SEM-VI)	Phy + Inorg. Chem (XV)	02
03	Mr.M.S.	B.Sc. F.Y.	Inorg.	02
	Rathod	(SEM-I)	Chem ( I &II)	
		B.Sc. S.Y. (SEM-III)	Inorg. Chem (VI &VII)	00
		B.Sc. T.Y. (SEM-V)	Inorg. Chem (XII & XIII)	02
		B.Sc. F.Y. (SEM-II)	Inorg. Chem (III & IV)	02
		B.Sc. S.Y. (SEM-IV)	Inorg. Chem (VIII & IX)	00
		B.Sc. T.Y. (SEM-VI)	Inorg. Chem (XIV & XV)	02

## FORMAT-6 2015-16

NAME OF THE TEACHE R	CLASS	THEORY COURSE NAME & NUMBER	AVAILABL E LECTURE S	CONDUCTE D LECTURES	% CONDUCTE D
Dr. K. S.	B.Sc.	Organic +	45 per	45 per	100%
Niralwad	F.	Inorganic	course	course	
	Y.,S.Y,	Chemistry –[			
	T.Y	I,III,VI,VIII,XII,X			
		IV]			
Mr. P.R.	B.Sc.	Physical +	45 per	45 per	100%
Pande	F.	Inorganic	course	course	

Y.,S.Y,	Chemistry –[		
T.Y	II,IV,VII,IX,XIII,		
	XV]		
	Total courses:		
	lectures:		

## FORMAT-7 2015-16

Class	Practical	Available	Conducted	% conducted
	course			
B.Sc. F.Y	V	120	120	100%
B.Sc. S.Y	X & XI	240	240	100%
B.Sc. T.Y	XVI & XVII	240	240	100%
	Total courses:			
	practical:			

## FORMAT-8 2015-16

No.	Name of the Teacher		Leav	ve taken		Teachers
		C.L.	D.L	M.L	Any other	Signature
01	Dr. K.S. Niralwad	03	25			
02	Mr. P.R. Pande	07	17			

## FORMAT-9 2015-16

#### **Departmental Documentation Performa:-**

Name of the Ac	ctivity :		
Date	Faculty	Department / Committee	Coordinator Name @ Phone no.
11/01/2016	Science	Science association	Dr. Kirti Niralwad
Time	Venue	Activity for class / group Expected student number	Nature of the Activity:
2:50 p.m.	Hal No. 21	Seminar	Co-curricular

### Collage Name:- Nutan Mahavidyalaya Selu

Support / Assistance:\_\_\_\_\_-

Brief Information about the	Activity (Citerion no-):
-----------------------------	--------------------------

Topic/Subject of the Activity	Seminar of B.Sc. T.Y.
Objective for conducting the activity.	<ul> <li>To help students develop professional skills and attitudes of scientists.</li> <li>To address issues of importance to scientists that typically do not fit well into traditional chemistry courses.</li> <li>To work in conjunction with academic advisors to help students appreciate the interconnections in the chemistry curriculum and develop and execute a plan to successfully complete graduation requirements in a timely fashion.</li> <li>To introduce ideas or topics of growing importance related to chemistry that are not typically covered in General Chemistry.</li> </ul>
Methodology	
Outcome	

Recommendations from:

Date of Proposal Submission: Proofs attached: letter/ student list of participation / certificate / document/ **photos** / any other.









	MANAND TEERTH MARTHWADA UNIVERSITY, NANDED	
SWAMI NO	TAN MAHAVIOYALAYA, SAILU DIST-PARBHANI	
	SCIENCE ASSOCIATION	
	Department Of Chemistry	
	SEMINARS	
	B.ScIII"Year (Semicor)	
	Date:-	11/01/16
ame of B.Sc. III <sup>rd</sup> year stu	dents presenting seminars:	
Manne of the students	Topic	Signature
Breadas D.	Chasacteristics of Peoternet	Byarder_
Ginandge 5.5	pothods of prep of Amino and	
		year
Ramud A.m	chrocitication & proteins	hand
COOMEN AT P .	classification of period Timino	42.
Ranjwans.R	Dipolar nature of amono and	-sugarg
Chovan P.D	Int a) Asy due to - NUL gam	- athered
Rout S-R	chomical properties of a amine	Reput
parbhantas a.v.	SUMMERS IS OF DEPHATING TO MERSON	remark
Potdor A.a.	Intro class , & nomeneta-	206toga
Isate S. B.	Preparation of + amino acred	mali
Hadgaphikarss	Useon Dic asreagent tor	Sandaus
RELLANDER D.D.	Preparation of dearning acid By	ah s. La

## FORMAT-13 2015-16

# Teaching Plan.

Department:	Chemistry
Faculty:-	Science
Name of the Faculty:	Dr. Kirti S. Nralwad
Subject :	Chemistry

Term I /						
Sr.N o	Class	Subject	Month	Topic covered	Topics to be covered	
	B.SC.F.Y.	Organic + Inorganic Chemistry	JULY	Nomenclature of Organic Compounds	Nomenclature of Organic Compounds	
	(I)		AUG	Basic Concepts In Organic Chemistry	Basic Concepts In Organic Chemistry	
			SEP	Alkanes and Cycloalkanes	Alkanes and Cycloalkanes	
			OCT	Alkenes, Dienes and Alkynes	Alkenes, Dienes and Alkynes	
			NOV	Alcohols and Epoxides	Alcohols and Epoxides	
	B.Sc.S.Y.	Organic + Inorganic Chemistry	JULY	Aromatic Carbonyl Compounds	Aromatic Carbonyl Compounds	
		(VI)	AUG	Polymers	Polymers	
			SEP	Stereochemistr y	Stereochemistr y	
			OCT	Organic Synthesis via Enolates	Organic Synthesis via Enolates	
			NOV	Theory of Oualitative	Theory of Oualitative	

				Analysis	Analysis
	B.Sc.T.Y.	Organic + Inorganic	JULY	Heterocyclic Compounds	Heterocyclic Compounds
	Chemistry (XII)	AUG	Six-membered heterocyclics	Six-membered heterocyclics	
			SEP	Synthetic drugs and dyes	Synthetic drugs and dyes
			ОСТ	Alkaloids, Vitamins and Pesticides	Alkaloids, Vitamins and Pesticides
			NOV	Hard And Soft Acids And Bases	Hard And Soft Acids And Bases
TERM	/I II		THEORY	7	
Sr.N o	Class	Subject	Month	Topic covered	Topics to be covered
	B.SC.F.Y.	Organic + Inorganic Chemistry (III)	DEC	Aromatic Hydrocarbons and Aromaticity	Aromatic Hydrocarbons and Aromaticity
			JAN	Phenols & Haloalkene and Haloarene	Phenols & Haloalkene and Haloarene
			FEB	Carboxylic Acid Derivatives	Carboxylic Acid Derivatives
			MARCH	Study of P- block elements	Study of P- block elements
	B.Sc.S.Y.	Organic + Inorganic Chemistry (VIII)	DEC	Carbohydrates & Organic compounds of nitrogen	Carbohydrates & Organic compounds of nitrogen
			JAN	Heterocyclic Compounds	Heterocyclic Compounds

		FEB	Polynuclear Hydrocarbon	Polynuclear Hydrocarbon
		MARCH	Chemistry of Transition series elements	Chemistry of Transition series elements
B.Sc.T.Y.	Organic + Inorganic Chemistry (XIV)	DEC	U. V. & I.R. Spectroscopy	U. V. & I.R. Spectroscopy
		JAN	NMR – Spectroscopy	NMR – Spectroscopy
		FEB	Amino acids, Peptides and Proteins	Amino acids, Peptides and Proteins
		MARCH	Synthetic Polymers and Molecular Rearrangemen ts	Synthetic Polymers and Molecular Rearrangement s

	<b>PRACTICALS</b> (In case of Science)						
Sr.N o	Class	Subject	Month	Topic covered	Topics to be covered		
	B.SC.F.Y.	Organic + Inorganic + Physical Chemistry	June- March	Laboratory Course-I	Laboratory Course-I		
	B.SC.S.Y.	Organic + Inorganic Chemistry	June- March	Laboratory Course-II	Laboratory Course-II		
	B.SC.T.Y.	Organic + Inorganic Chemistry	June- March	Laboratory Course-IV	Laboratory Course-IV		

### FORMAT-14 2015-16

Student Strenght of Department : <b>Total :-</b> 108	<b>F.Y</b> . :-	58	S.Y.:-	19	Т.Ү.:-	31
F.Y. B.Sc = Practical Batches :-	02					
S.Y. B.SC = Practical Batches:-	01					
Total Departmental workload =	42					

## Name of the Teacher : Dr. Kirti S. Niralwad

Sr.N o	Class	Lectures	Practicals	To wor	otal kload	Extra workload
1	F.Y. B.Sc	02	01	06		
2	S.Y. B.Sc	02	01	06	18	00
3	T.Y. Bsc	02	01	06		

## Name of the Teacher : Mr.Pande .P.R.

Sr.N o	Class	Lectures	Practicals	T wor	otal kload	Extra workload
1	F.Y. B.Sc	02	01	06		
2	S.Y. B.Sc	03	01	07	20	00
3	T.Y. Bsc	03	01	07		

## FORMAT-14 2015-16

Faculty	Science			
Department	Chemistry			
Name of the Teacher	Dr. Kirti S. Niralwad			
Total Workload (03)	18	Lectures (06)	Practical's	

Sr. No	Class	Lectures	Practical's	Total workload	Extra workload
1	B.Sc. F.Y.	02	01	06	
2	B.Sc. S.Y.	02	01	06	
3	B.Sc. T.Y.	02	01	06	
	Total			18	00

Faculty	Science	Science		
Department	Chemist	Chemistry		
Name of the Teacher	Mr. P.R.	Mr. P.R.Pande		
Total Workload (03)	20	Lectures (08)	Practical's	

Sr. No	Class	Lectures	Practical's	Total workload	Extra workload
1	B.Sc. F.Y.	02	01	06	
2	B.Sc. S.Y.	03	01	07	
3	B.Sc. T.Y.	03	01	07	
	Total			20	00

Faculty	Science			
Department	Chemistry			
Name of the Teacher	Mr. M.S.Rathod			
Total Workload (00)	04	Lectures (04)	Practical's	

Sr. No	Class	Lectures	Practical's	Total workload	Extra workload
1	B.Sc. F.Y.	02	00	00	
2	B.Sc. S.Y.	01	00	01	
3	B.Sc. T.Y.	01	00	01	
	Total			04	00



**PROFILE OF CHEMISTRY DEPARTMENT** 

The Chemistry department of the college was established in the year **1968**. For the first two years, department functioned in the laboratories of the Nutan Vidyalaya. A department was then shifted to Hall No. 2 of the present main building of the college, which was temporarily renovated to accommodate departmental laboratories. Department was finally shifted to the present place in **1976**.

# LABORATORIES

Department is now housed in a spacious building which was constructed under UGC assistance. Department sincerely want to thank UGC for its generous contribution in the construction of laboratory buildings.

Departmental building comprises two laboratories, a preparation room, a store room, LPG gas stored room, cabin for Head of the department, staff room, etc.











Dimensions of our laboratories i.e. 40 X 22, provide sufficient moving space to 24 students working in a single practical batch. Our laboratories are well furnished and have all the physical facilities such as Inverter, running water, L.P.G. line, exhaust fans etc. Department has given serious consideration for its safety and thus had made provision for two fire extinguishers to meet any emergency. Department has a first aid box, which is used for providing first aid in case of minor injuries.

#### **CHEMICAL EQUIPMENTS**

Department has ample stock of laboratory chemicals, glassware and other equipment required for U.G. level courses. Department has a special store room for stocking chemicals, glassware and equipments. Department rightfully boasted of having multiple copies of all the analytical instruments required for physical chemistry practical. Department is really grateful to UGC for providing financial assistance for the procurement of laboratory equipment and instruments. The infrastructure of the department is sufficient to carry out minor research projects. Beside equipments department has a stock of few charts, models, video cassettes etc. A separate list of major equipments, instruments, charts, Video cassettes is given.

Department makes its routine purchases of chemicals, glassware and equipments from the budget allowed to the department every year. A part of the departmental budget is utilized for the maintenance and repairs of laboratory instruments. Department Strictly adheres to the government norms regarding purchases such as calling quotations, making comparative statements of quotations etc.
#### STAFF

Department was established in 1968, under the leadership of Dr. R. M. Kharwadkar, who was the founder head of the unit. In the current academic year, department has two full time teachers, who is assisted by one part time teacher appointed on clock hour basis. A list of faculty is given separately.

Department is manned by a full time laboratory assistant who is assisted by two laboratory attendants. Laboratory assistant is assigned the work of maintenance of stock registers, yearly stock verification, preparation work of practical's, etc. A list of staff is given separately.

#### LIBRARY

Department have its own library unit. The books in our subjects are stocked in the racks of central library. The total number of chemistry titles in the central library is 1205, which includes text and reference books. Besides, the department has started its own departmental library with selective books useful for regular studies. The faculty has their own personal books which are made available to the students as per the need and demand.

- Chemistry for degree students B.Sc. I<sup>st</sup>, II<sup>nd</sup>, III<sup>rd</sup> by R.L. Madan
- Organic chemistry by Bahl and Bahl
- Principle of Inorganic Chemistry by Puri, Sharma &Kalia.
- Essential of physical chemistry by Bahl, Bahl and Tuli
- Organic Spectroscopy by P.S. Kalsi

- Organic reactions by Adams
- Organic chemistry by Gilman
- Inorganic chemistry by J.D. Lee

The library of chemistry books includes books in all the branches of chemistry such as organic, physical, analytical, Industrial etc. Enrichment of our departmental library could be possible due to U.G.C. financial assistance in different plan periods.

Besides text and reference books, department has subscribed for research journals such as

- Current Science
- Indian journal of chemistry

Library has bound volumes of back numbers for the above journals. Presently, we have subscribed for Indian journal of chemistry.

Library budget allotted to the department is utilized for the procurement of books.

# Faculty Profiles: link will be provided...

http://www.nutanmahavidyalaya.com/images/facultyprofile/ Resume%20of%20Dr%20Niralwad.pdf

### AIMS AND OBJECTIVES

- 1. Basically the Chemistry including the study of Organic, Physical and Inorganic chemistry.
- 2. To create interest among the student in chemistry and make them aware of the economic importance which is needed for industrial importance
- 3. To create among the student regarding self employment and generate of sources of the income through chemical science.
- 4. To promote and create the student for higher education and research aptitude.
- 5. To create Inspiration and motivation to students.
- 6. To provide students with the latest technologies and learning aids.
- 7. To encourage the students for creative writing.
- 8. To develop research faculties and research discipline in the students.

# Objective

- 1. To organize conferences and seminars in the future.
- 2. To connect the faculty and all the students through latest devices of information technologies
- 3. To arrange more and more guest lecturers in the department.
- 4. To enrich the reservoir of e-content
- 5. To encourage the students for wall bulletin, seminar and group discussion.

# Report of Academic Year 2013-14: ACTIVITIES

Since department runs only UG level courses, minor activity of the department is teaching, obviously research contribution of the department is marginal. To supplement classroom teaching activity, department actively participate in organizing following co-curricular activities.

- Organization of Guest lectures
- Subject seminar by students
- Wall bulletin by students.
- Poster presentation for Avishkar by students.

# FORMAT-1

#### <u>2016-17</u>

# TOTAL STUDENT STRENGTH OF THE DEPARTMENT OF CHEMISTRY

NO	CLASS		NO OF DIVISIONS		
		MALE	FEMALE	TOTAL	
01	B.Sc. FY	25	32	57	02
02	B.Sc. SY	10	15	25	01
03	B.Sc. TY	07	09	16	01

# FORMAT-2

# <u>2016-17</u>

## NAME OF DEPARTMENT: Chemistry

NO	NAME OF THE STAFF MEMBER	QUALIFICAT IONS	DATE OF APPOINTM ENT	NATURE OF APPOINTM ENT	YEARS OF SERVI CE
01	Dr. K.S.	M.Sc. , Ph.D.	10/10/2011	Permanent	05
	Niralwad				
02	Mr. P.R. Pande	M.Sc. NET	20/10/2012	Permanent	04
03	Mr.M.S. Rathod	M.Sc.B.Ed.	June-2015	CHB	02

### FORMAT-3

2016-17 NAME OF DEPARTMENT: CHEMISTRY

NO	NAME OF	WORK LOAD				
	THE	CLASS	THEORY	PRACTICAL	TOTAL	SIGNATURE
	STAFF	WISE				OF THE
	MEMBER					STAFF
						MEMBER
01	Dr. K.S.	B.Sc.	02	01	18	
	Niralwad	F.Y			-	
	Maiwau	B.Sc.	02	01		
		S.Y				
		B.Sc.	02	01		
		T.Y				
02	Mr. P.R.	B.Sc.	01	02	21	
	Dondo	F.Y				
	Fanue	B.Sc.	02	01		
		S.Y				
		B.Sc.	02	01		
		T.Y				
03	Mr. M.S.	B.Sc.	03	00	07	
	Pathod	F.Y				
	Katilou	B.Sc.	02	00		
		S.Y				
		B.Sc.	02	00		
		T.Y				

### FORMAT- 2016-17

# DEPARTMENT OF CHEMISTRY Name: Dr. KIRTI S. NIRALWAD

Day	10:10	11:00	2:50	3:40-6:10	
Monday				S.Y.(S1batch Pra.) (Paper X)	
Tuesday		F.Y.			
Wednesday		S.Y.	T.Y.(T <sub>1</sub> batch Pra.) (Paper XVI)		
Thursday	T.Y	S.Y.			
Friday	T.Y.		F.Y. (F1 Batch Pra.)		
Saturday		F.Y.			

# DEPARTMENT OF CHEMISTRY Name: Mr. P.R. Pande

Day	10:10	11:00	2:0 0	2:50	3:40-6:10
Monday	Т.Ү.				
Tuesday	T.Y.				S.Y.(S1batch Pra.) (Paper XI)
Wednesday	S.Y.				
Thursday	S.Y.			T.Y.(′	T1batch Pra.) (Paper XV)
Friday		F.Y.		F.	Y. (F3 Batch Pra.)
Saturday				F.	Y. (F2 Batch Pra.)

# **DEPARTMENT OF CHEMISTRY** Name: Mr. M.S. Rathod

Day	10:10	11:00	2:50	3:40-6:10
Monday		F.Y.		
Tuesday				
Wednesday	T.Y.	F.Y.		
Thursday		F.Y.		
Friday		S.Y.		
Saturday	T.Y.	S.Y.		

# FORMAT-5

#### 2016-17

#### NO NAME OF CLASS COURSE TOTAL NO DATE OF THE NAME AND OF TEACHING TEACHER NUMBER **LECTURES** PLAN ALLOTTED COMPLETION K.S. 01 F.Y. B.Sc. Org + Inorg. 02 Dr. (SEM-I) Chem (I) Niralwad Org + Inorg. B.Sc. S.Y. 02 (SEM-III) Chem (VI) Org + Inorg. 02 B.Sc. T.Y. (SEM-V) Chem (XII) 02 B.Sc. F.Y. Org + Inorg. Chem (III) (SEM-II) B.Sc. S.Y. Org + Inorg. 02 Chem (VIII) (SEM-IV) B.Sc. T.Y. Org + Inorg. 02 (SEM-VI) Chem (XIV) 02 P.R. + 01 Mr. B.Sc. F.Y. Phy (SEM-I) Inorg. Pande Chem (II) + B.Sc. S.Y. 02 Phy (SEM-III) Inorg. Chem (VII) B.Sc. T.Y. Phy + 02

#### NAME OF THE DEPARTMENT: Chemistry

		(SEM-V)	Inorg. Chem (XIII)		
		B.Sc. F.Y. (SEM-II)	Phy + Inorg. Chem (IV)	01	
		B.Sc. S.Y. (SEM-IV)	Phy + Inorg. Chem (IX)	02	
		B.Sc. T.Y. (SEM-VI)	Phy + Inorg. Chem (XV)	02	
03	Mr.M.S. Rathod	B.Sc. F.Y. (SEM-I)	Inorg. Chem ( I &II)	03	
		B.Sc. S.Y. (SEM-III)	Inorg. Chem (VI &VII)	02	
		B.Sc. T.Y. (SEM-V)	Inorg. Chem (XII & XIII)	02	
		B.Sc. F.Y. (SEM-II)	Inorg. Chem (III & IV)	03	
		B.Sc. S.Y. (SEM-IV)	Inorg. Chem (VIII & IX)	02	
		B.Sc. T.Y. (SEM-VI)	Inorg. Chem (XIV & XV)	02	

# FORMAT-6 2016-17

NAME	CLAS	THEORY	AVAILABL	CONDUCTE	%
OF THE	S	COURSE NAME	E	D	CONDUCTE
TEACHE		& NUMBER	LECTURE	LECTURES	D
R			S		
Dr. K. S.	B.Sc.	Organic +	45 per	45 per	100%
Niralwad	F.	Inorganic	course	course	
	Y.,S.Y	Chemistry –[			
	, T.Y	I,III,VI,VIII,XII,XI			
		V]			
Mr. P.R.	B.Sc.	Physical +	45 per	45 per	100%
Pande	F.	Inorganic	course	course	
	Y.,S.Y	Chemistry –[			
	, T.Y	II,IV,VII,IX,XIII,X			
		V]			
		Total courses:			
		lectures:			

# FORMAT-7 2016-17

Class	Practical	Available	Conducted	% conducted
	course			
B.Sc. F.Y	V	120	120	100%
B.Sc. S.Y	X & XI	240	240	100%
B.Sc. T.Y	XVI & XVII	240	240	100%
	Total			
	courses:			

# FORMAT-8 2016-17

No.	Name of the Teacher		Teachers			
		C.L.	D.L	M.L	Any other	Signature
01	Dr. K.S. Niralwad	06	22	06		
02	Mr. P.R. Pande	08	01	06		

# FORMAT-9 2016-17

### **Departmental Documentation Performa:-**

# Collage Name:- Nutan Mahavidyalaya ,selu

Name of the Activity :					
Date	Faculty	Department / Committee	Coordinator Name @ Phone no.		
08/09/2016	Science	Science association	Dr. Kirti Niralwad		
Time	Venue	Activity for class / group Expected student number	Nature of the Activity:		
2:50 p.m.	Hal No. 09	Seminar	Co-curricular		

Support / Assistance:\_\_\_\_\_-

Brief Information about the Activity (Citerion no-):

Topic/Subject of the Activity	Seminar of B.Sc. S.Y.
Objective for conducting the activity.	<ul> <li>To help students develop professional skills and attitudes of scientists.</li> <li>To address issues of importance to scientists that typically do not fit well into traditional chemistry courses.</li> <li>To work in conjunction with academic advisors to help students appreciate the interconnections in the chemistry</li> </ul>

	curriculum and develop and execute a plan to successfully complete graduation requirements in a timely fashion.
	To introduce ideas or topics of growing importance related to chemistry that are not typically covered in General Chemistry.
Methodology	
Outcome	

Recommendations from:

Date of Proposal Submission:

Proofs attached: letter/ **student list of participation** / certificate / document/ photos / any other





	SWAMI RAMANAND TEERTH MARTHWADA	UNIVERSITY, NAND	ED
	NUTAN MAHAVIDYALAYA, SAILU DI	ST-PARBHANI	
	SCIENCE ASSOCIATION		
	Department Of Chemistr	¥	
	SEMINARS		
	B.ScII <sup>rd</sup> year [Sem-III]		
		Da	ite:-08/09/2016
Name o	of the students attending seminars:-		
Sr.No.	Name of the students	Gass ID.	Signature
1)	Kadam Scoati Bhazateao	10731	Bhaidam
2	Jadhay Shiyani Shrikant	10435	BUILDAN
3)	Shinde Dipater Sudhakar	11782	_Bipa)ee
4)	Ghorsad seema Narayan	10826	Sugued
5	Giei Meeza Azun	11145	724201
6)	Gaymal Komal Parmerhware	11703	Braymal
75	Deshmukh punam Balasaheb	10716	Comulat
-8)	solanke shubbangi laxmon	10705	Tublerg i
(P	Eharade Revati Ashroba	10871	Parati
10}	Misheq sunita Manojkumoz	10223	Sunite.
11)	Page Atti Ktishnatao	9786	ALL
127	masuze Reeta shivshankoz	10759	BARASUER
	Shaquyta Naaz. Md. Harroon	11223	Might
13)		10 630	Burst
13)	Veer Amar Bhaskarroo		

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# **Departmental Documentation Performa:-**

Name of the Activity :					
Date	Faculty	Department / Committee	Coordinator Name @ Phone no.		
12/01/2017	Science	Science association	Dr. Kirti Niralwad		
Time	Venue	Activity for class / group Expected student number	Nature of the Activity:		
2:50 p.m.	Hal No. 08	Seminar	Co-curricular		

# Collage Name:- Nutan Mahavidyalaya ,selu

Support / Assistance:\_\_\_\_\_-

Brief Information about the Activity (Citerion no-):

Topic/Subject of the Activity	Seminar of B.Sc. T.Y.
Objective for conducting the activity.	<ul> <li>To help students develop professional skills and attitudes of scientists.</li> <li>To address issues of importance to scientists that typically do not fit well into traditional chemistry courses.</li> <li>To work in conjunction with academic advisors to help students appreciate the interconnections in the chemistry curriculum and develop and execute a plan to successfully complete graduation requirements in a timely fashion.</li> <li>To introduce ideas or topics of growing importance related to chemistry that are not typically covered in General Chemistry.</li> </ul>
Methodology	
Outcome	

Recommendations from:

Date of Proposal Submission:

Proofs attached: letter/ **student list of participation** / certificate / document/ photos / any other

	SWAMI RAMANAND TEERTH MARTHWADA	JNIVERSITY, NANDE	D
	NUTAN MAHAVIDYALAYA, SAILU DIS	T-PARBHANI	
	SCIENCE ASSOCIATION		
	Department Of Chemistr	x	
	SEMINARS		
	B.ScIII <sup>rd</sup> year [Sem-VI]		
Name o	f the students attending seminars:-	Dat	te:- 12/01/2017
Sr.NO.	Name of the students	Class	Signature
1)	Rangwan Sugata	B.SC.T.Y	swaty
2)	pathantkat A.S.	BISCITY	Alutate
3)	Ghandge Shital	B.SC. T.J	Ghandge
40	Chavan Pooja	B.ST.Y	Ebavab.
S	BiEadare Onyanda	B.SC. T.Y	Syanda .
6)	Potbhankar Arti Bapusoo	B.SC.T.Y	Prosti
7)	Potdor Aishwarzy a Sarijazi	B. SC . T. Y.	CAPPotdaz.
8)	kale sonali Balasaheb	B-SC.TY	-andui
g)	Warner Astroke pundureang	43.5.0.714-	DELies
10)	Rathod Avinash Manilesoo	B.SC.TY.	ARAID
11)	Hadgoonkar Shantanu P.	B.SC.T.Y.	Strandane,
12)	partinankan steihant vijayoo	B.SC.T.Y	Acchant
	One and's consistent	B. 907.4.	Recent
131	Roll Contras Personanter		the second se
13)	Dhage Amol Bhagwan	B.Sc. T.Y	Downer +

# FORMAT-13 2016-17

# Teaching Plan.

Department:ChemistryFaculty:-ScienceName of the Faculty:Dr. Kirti S. NralwadSubject :Chemistry

THEORY						
Term	Ι/	1	1	1	r	
Sr.N o	Class	Subject	Month	Topic covered	Topics to be covered	
	B.SC.F.Y.	Y. Organic + JULY Nom Inorganic Chemistr Com		Nomenclature of Organic Compounds	Nomenclature of Organic Compounds	
		y (l)	AUG	Basic Concepts In Organic Chemistry	Basic Concepts In Organic Chemistry	
			SEP	Alkanes and Cycloalkanes	Alkanes and Cycloalkanes	
			OCT	Alkenes, Dienes and Alkynes	Alkenes, Dienes and Alkynes	
			NOV	Alcohols and Epoxides	Alcohols and Epoxides	
	B.Sc.S.Y. Organic + Inorganic Chemistr		JULY	Aromatic Carbonyl Compounds	Aromatic Carbonyl Compounds	
		y (VI)	AUG	Polymers	Polymers	
			SEP	Stereochemistr y	Stereochemistr y	
			ОСТ	Organic Synthesis via Enolates	Organic Synthesis via Enolates	
			NOV	Theory of Qualitative	Theory of Qualitative	

				Analysis	Analysis			
	B.Sc.T.Y.	Organic + Inorganic	JULY	Heterocyclic Compounds	Heterocyclic Compounds			
		Chemistr y (XII)	AUG	Six-membered heterocyclics	Six-membered heterocyclics			
				Synthetic drugs and dyes	Synthetic drugs and dyes			
			OCT Alkaloids, Vitamins and Pesticides		Alkaloids, Vitamins and Pesticides			
			NOV	Hard And Soft Acids And Bases	Hard And Soft Acids And Bases			
TERN	THEORY TERM II							
Sr.N o	Class	Subject	Month	Topic covered	Topics to be covered			
	B.SC.F.Y.	Organic + Inorganic Chemistr y (III)	DEC	Aromatic Hydrocarbons and Aromaticity	Aromatic Hydrocarbons and Aromaticity			
			JAN	Phenols & Haloalkene and Haloarene	Phenols & Haloalkene and Haloarene			
			FEB	Carboxylic Acid Derivatives	Carboxylic Acid Derivatives			
			MARCH	Study of P- block elements	Study of P- block elements			
	B.Sc.S.Y.	Organic + Inorganic Chemistr y (VIII)	DEC	Carbohydrates & Organic compounds of nitrogen	Carbohydrates & Organic compounds of nitrogen			
			JAN	Heterocyclic Compounds	Heterocyclic Compounds			

			FEB	Polynuclear Hydrocarbon	Polynuclear Hydrocarbon
			MARCH	Chemistry of Transition series elements	Chemistry of Transition series elements
	B.Sc.T.Y.	Organic + Inorganic Chemistr y (XIV)	DEC	U. V. & I.R. Spectroscopy	U. V. & I.R. Spectroscopy
			JAN	NMR – Spectroscopy	NMR – Spectroscopy
			FEB	Amino acids, Peptides and Proteins	Amino acids, Peptides and Proteins
			MARCH	Synthetic Polymers and Molecular Rearrangemen ts	Synthetic Polymers and Molecular Rearrangement s
		PRACTICA	<b>LS</b> (In cas	e of Science)	
Sr.N o	Class	Subject	Month	Topic covered	Topics to be covered
	B.SC.F.Y.	Organic + Inorganic + Physical Chemistr y	June- March	Laboratory Course-I	Laboratory Course-I
	B.SC.S.Y.	Organic + Inorganic Chemistr y	June- March	Laboratory Course-II	Laboratory Course-II
	B.SC.T.Y.	Organic + Inorganic Chemistr y	June- March	Laboratory Course-IV	Laboratory Course-IV

# FORMAT-14 2016-17

Student Strenght of Department : <b>Total :-</b> 98	<b>F.Y</b> . :-	57	S.Y.:-	25	Т.Ү.:-	16
F.Y. B.Sc = Practical Batches :-	02					
S.Y. B.SC = Practical Batches:-	01					
Total Departmental workload =	42					

# Name of the Teacher : Dr. Kirti S. Niralwad

Sr.N o	Class	Lectures	Practica ls	To wor	otal kload	Extra workload
1	F.Y. B.Sc	02	01	06	18	
2	S.Y. B.Sc	02	01	06		00
3	T.Y. Bsc	02	01	06		

Name of the Teacher : Mr.Pande .P.R.

Sr.N o	Class	Lectures	Practica ls	To wor	otal kload	Extra workload
1	F.Y. B.Sc	01	02	09	21	
2	S.Y. B.Sc	02	01	06		01
3	T.Y. Bsc	02	01	06		

# FORMAT-15 2016-17

Faculty	Science		
Department	Chemistry		
Name of the Teacher	Dr. Kirti S. I	Viralwad	
Total Workload (03)	18	Lectures (06)	Practical's

Sr. No	Class	Lectures	Practica l's	Total workload	Extra workload
1	B.Sc. F.Y.	02	01	06	
2	B.Sc. S.Y.	02	01	06	
3	B.Sc. T.Y.	02	01	06	
	Total			18	00

Faculty	Science				
Department	Chemistry				
Name of the Teacher	Mr. P.R.Pan	de			
Total Workload (03)	21	Lectures (05)	Practical's		

Sr. No	Class	Lectures	Practica l's	Total workload	Extra workload
1	B.Sc. F.Y.	01	02	09	
2	B.Sc. S.Y.	02	01	06	
3	B.Sc. T.Y.	02	01	06	
	Total			21	01

Faculty	Science		
Department	Chemistry		
Name of the Teacher	Mr. M.S.Ra	uthod	
Total Workload (00)	11	Lectures (07)	Practical's

Sr. No	Class	Lectures	Practica l's	Total workload	Extra workload
1	B.Sc. F.Y.	03	00	03	
2	B.Sc. S.Y.	02	00	02	
3	B.Sc. T.Y.	02	00	02	
	Total			07	00



**PROFILE OF CHEMISTRY DEPARTMENT** 

The Chemistry department of the college was established in the year **1968**. For the first two years, department functioned in the laboratories of the Nutan Vidyalaya. A department was then shifted to Hall No. 2 of the present main building of the college, which was temporarily renovated to accommodate departmental laboratories. Department was finally shifted to the present place in **1976**.

# **LABORATORIES**

Department is now housed in a spacious building which was constructed under UGC assistance. Department sincerely want to thank UGC for its generous contribution in the construction of laboratory buildings.

Departmental building comprises two laboratories, a preparation room, a store room, LPG gas stored room, cabin for Head of the department, staff room, etc.











Dimensions of our laboratories i.e. 40 X 22, provide sufficient moving space to 24 students working in a single practical batch. Our laboratories are well furnished and have all the physical facilities such as Inverter, running water, L.P.G. line, exhaust fans etc. Department has given serious consideration for its safety and thus had made provision for two fire extinguishers to meet any emergency. Department has a first aid box, which is used for providing first aid in case of minor injuries.

#### CHEMICAL EQUIPMENTS

Department has ample stock of laboratory chemicals, glassware and other equipment required for U.G. level courses. Department has a special store room for stocking chemicals, glassware and equipments. Department rightfully boasted of having multiple copies of all the analytical instruments required for physical chemistry practical. Department is really grateful to UGC for providing financial assistance for the procurement of laboratory equipment and instruments. The infrastructure of the department is sufficient to carry out minor research projects. Beside equipments department has a stock of few charts, models, video cassettes etc. A separate list of major equipments, instruments, charts, Video cassettes is given.

Department makes its routine purchases of chemicals, glassware and equipments from the budget allowed to the department every year. A part of the departmental budget is utilized for the maintenance and repairs of laboratory instruments. Department Strictly adheres to the government norms regarding purchases such as calling quotations, making comparative statements of quotations etc.

#### STAFF

Department was established in 1968, under the leadership of Dr. R. M. Kharwadkar, who was the founder head of the unit. In the current academic year, department has two full time teachers, who is assisted by one part time teacher appointed on clock hour basis. A list of faculty is given separately.

Department is manned by a full time laboratory assistant who is assisted by two laboratory attendants. Laboratory assistant is assigned the work of maintenance of stock registers, yearly stock verification, preparation work of practical's, etc. A list of staff is given separately.

#### LIBRARY

Department have its own library unit. The books in our subjects are stocked in the racks of central library. The total number of chemistry titles in the central library is 1205, which includes text and reference books. Besides, the department has started its own departmental library with selective books useful for regular studies. The faculty has their own personal books which are made available to the students as per the need and demand.

- Chemistry for degree students B.Sc. I<sup>st</sup>, II<sup>nd</sup>, III<sup>rd</sup> by R.L. Madan
- Organic chemistry by Bahl and Bahl
- Principle of Inorganic Chemistry by Puri, Sharma &Kalia.
- Essential of physical chemistry by Bahl, Bahl and Tuli
- Organic Spectroscopy by P.S. Kalsi

- Organic reactions by Adams
- Organic chemistry by Gilman
- Inorganic chemistry by J.D. Lee

The library of chemistry books includes books in all the branches of chemistry such as organic, physical, analytical, Industrial etc. Enrichment of our departmental library could be possible due to U.G.C. financial assistance in different plan periods.

Besides text and reference books, department has subscribed for research journals such as

- Current Science
- Indian journal of chemistry

Library has bound volumes of back numbers for the above journals. Presently, we have subscribed for Indian journal of chemistry.

Library budget allotted to the department is utilized for the procurement of books.

# Faculty Profiles: link will be provided...

http://www.nutanmahavidyalaya.com/images/facultyprofile/ Resume%20of%20Dr%20Niralwad.pdf

### AIMS AND OBJECTIVES

- 1. Basically the Chemistry including the study of Organic, Physical and Inorganic chemistry.
- 2. To create interest among the student in chemistry and make them aware of the economic importance which is needed for industrial importance
- 3. To create among the student regarding self employment and generate of sources of the income through chemical science.
- 4. To promote and create the student for higher education and research aptitude.
- 5. To create Inspiration and motivation to students.
- 6. To provide students with the latest technologies and learning aids.
- 7. To encourage the students for creative writing.
- 8. To develop research faculties and research discipline in the students.

# Objective

- 1. To organize conferences and seminars in the future.
- 2. To connect the faculty and all the students through latest devices of information technologies
- 3. To arrange more and more guest lecturers in the department.
- 4. To enrich the reservoir of e-content
- 5. To encourage the students for wall bulletin, seminar and group discussion.

# Report of Academic Year 2013-14: ACTIVITIES

Since department runs only UG level courses, minor activity of the department is teaching, obviously research contribution of the department is marginal. To supplement classroom teaching activity, department actively participate in organizing following co-curricular activities.

- Organization of Guest lectures
- Subject seminar by students
- Wall bulletin by students.
- Poster presentation for Avishkar by students.

# FORMAT-1

#### <u>2017-18</u>

### TOTAL STUDENT STRENGTH OF THE DEPARTMENT OF CHEMISTRY

NO	CLASS		NO OF DIVISIONS		
		MALE	FEMALE		
01	B.Sc. FY	27	55	82	04
02	B.Sc. SY	14	24	01	
03	B.Sc. TY	09	12	21	01

# FORMAT-2

# <u>2017-18</u>

# NAME OF DEPARTMENT: Chemistry

NO	NAME OF THE STAFF MEMBER	QUALIFICAT IONS	DATE OF APPOINTM ENT	NATURE OF APPOINTM ENT	YEARS OF SERVI CE
01	Dr. K.S.	M.Sc. , Ph.D.	10/10/2011	Permanent	06
	Niralwad				
02	Mr. P.R. Pande	M.Sc. NET	20/10/2012	Permanent	05
03	Mr.M.S. Rathod	M.Sc.B.Ed.	June-2015	CHB	03

### FORMAT-3

# 2017-18 NAME OF DEPARTMENT: CHEMISTRY

NO	NAME OF	WORK LOAD								
	THE STAFF MEMBER	CLASS WISE	THEORY	PRACTICAL	TOTAL	SIGNATURE OF THE STAFF MEMBER				
01	Dr. K.S. Niralwad	B.Sc. F.Y								
02	Mr. P.R. Pande	B.Sc. S.Y								
03	Mr.M.S. Rathod	B.Sc. T.Y								

# FORMAT- 4

# <u>2017-18</u>

# DEPARTMENT OF CHEMISTRY

# Name: Dr. KIRTI S. NIRALWAD

Day	10:10	11:00	12:40	2:0 0	2:50	3:40-6:10
Monday			Т.Ү.			S.Y.(S1batch Pra.)
Tuesday		F.Y.				
Wednesday		F.Y.		T.Y.(	Γ <sub>1</sub> batch	Pra.)
Thursday	S.Y.					
Friday			T.Y.	F.Y. (	(F1 Bat	ch Pra.) Lab 1.
Saturday	S.Y.					

#### DEPARTMENT OF CHEMISTRY

### Name: Mr. P.R. Pande

Day	10:10	11:00	12:40	2:00	2:50	3:40-6:10	
Monday		F.Y.					
Tuesday	S.Y.					S.Y.(S <sub>2</sub> batch Pra.)	
Wednesday			Т.Ү.		1		
Thursday			T.Y.	T.Y.(T <sub>1</sub>	batch I	Pra.)	
Friday	S.Y.			F.Y. (F	F.Y. (F2 Batch Pra.)		
Saturday		F.Y.		F.Y. (F	'3 Batcl	n Pra.) Lab 1	

### DEPARTMENT OF CHEMISTRY

### Name: Mr. M.S. Rathod

Day	10:10	11:00	12:40	2:00	2:50	3:40-6:10
Monday	S.Y.					S.Y.(S2batch Pra.)
Tuesday			T.Y.			S.Y.(S1batch Pra.)
Wednesday	S.Y.				-	
Thursday		F.Y.				
Friday		F.Y.				
Saturday			T.Y.	F.Y. (F4	Batch P	ra.) Lab 1

# FORMAT-5 2017-18

# NAME OF THE DEPARTMENT: Chemistry

NO	NAME OF THE TEACHER		CLA	SS	COURSE NAME AND NUMBER	TOTAL NO OF LECTURES ALLOTTED	DATE OF TEACHING PLAN COMPLETION
01	Dr.	K.S.	B.Sc.	F.Y.	Org + Inorg.	02	
	Niralwad		B.Sc.	S.Y. I)	Org + Inorg. Chem (VI)	02	
			B.Sc. (SEM-V		Org + Inorg. Chem (XII)	02	
			B.Sc. (SEM-II	F.Y. )	Org + Inorg. Chem (III)	02	
			B.Sc. (SEM-IV	S.Y. /)	Org + Inorg. Chem (VIII)	02	
			B.Sc. (SEM-V	T.Y. I)	Org + Inorg. Chem (XIV)	02	
02	Mr.	P.R.	B.Sc.	F.Y.	Phy +	02	

	Pande	(SEM-I)	Inorg. Chem (II)		
		B.Sc. S.Y. (SEM-III)	Phy + Inorg. Chem (VII)	02	
		B.Sc. T.Y. (SEM-V)	Phy + Inorg. Chem (XIII)	02	
		B.Sc. F.Y. (SEM-II)	Phy + Inorg. Chem (IV)	02	
		B.Sc. S.Y. (SEM-IV)	Phy + Inorg. Chem (IX)	02	
		B.Sc. T.Y. (SEM-VI)	Phy + Inorg. Chem (XV)	02	
03	Mr.M.S. Rathod	B.Sc. F.Y. (SEM-I)	Inorg. Chem ( I &II)	02	
		B.Sc. S.Y. (SEM-III)	Inorg. Chem (VI &VII)	02	
		B.Sc. T.Y. (SEM-V)	Inorg. Chem (XII & XIII)	02	
		B.Sc. F.Y. (SEM-II)	Inorg. Chem (III & IV)	02	
		B.Sc. S.Y. (SEM-IV)	Inorg. Chem (VIII & IX)	02	
		B.Sc. T.Y. (SEM-VI)	Inorg. Chem (XIV & XV)	02	

# FORMAT-6 2017-18

NAME	CLAS	THEORY	AVAILABL	CONDUCTE	%
OF THE	S	COURSE NAME	E	D	CONDUCTE
TEACHE		& NUMBER	LECTURE	LECTURES	D
R			S		
Dr. K. S.	B.Sc.	Organic +	45 per	45 per	100%
Niralwad	F.	Inorganic	course	course	
	Y.,S.Y	Chemistry –[			
	, T.Y	I,III,VI,VIII,XII,XI			
		V]			
Mr. P.R.	B.Sc.	Physical +	45 per	45 per	100%
Pande	F.	Inorganic	course	course	
	Y.,S.Y	Chemistry –[			
	, T.Y	II,IV,VII,IX,XIII,X			
		V]			
		Total courses:			
		lectures:			

# FORMAT-7 2017-18

Class	Practical course	Available	Conducted	% conducted
B.Sc. F.Y	V	120	120	100%
B.Sc. S.Y	X & XI	240	240	100%
B.Sc. T.Y	XVI & XVII	240	240	100%
	Total courses: practical:			

# FORMAT-8 2017-18

No.	Name of the Teacher	Leave taken			Teachers	
		C.L.	D.L	M.L	Any other	Signature
01	Dr. K.S. Niralwad	08	24	02		
02	Mr. P.R. Pande	07	39	08		

# FORMAT-9 2017-18

### **Departmental Documentation Performa:-**

# Collage Name:- Nutan Mahavidyalaya Selu

Name of the Activity :					
Date	Faculty	Department / Committee	Coordinator Name @ Phone no.		
06/02/2018	Science	Science association	Dr. Kirti Niralwad		
Time	Venue	Activity for class / group Expected student number	Nature of the Activity:		
2:50 p.m.	Hal No. 21	Seminar	Co-curricular		

Support / Assistance:\_\_\_\_\_-

Brief Information about the Activity (Citerion no-):

Topic/Subject of the Activity	Seminar of B.Sc. S.Y.
Objective for conducting the activity.	<ul> <li>To help students develop professional skills and attitudes of scientists.</li> <li>To address issues of importance to scientists that typically do not fit well into traditional chemistry courses.</li> <li>To work in conjunction with academic advisors to help students appreciate the interconnections in the chemistry</li> </ul>

	curriculum and develop and execute a plan to successfully complete graduation requirements in a timely fashion.
	To introduce ideas or topics of growing importance related to chemistry that are not typically covered in General Chemistry.
Methodology	
Outcome	

Recommendations from:

Date of Proposal Submission:

Proofs attached: letter/ student list of participation / certificate / document/ **photos** / any other.









# FORMAT-13 2017-18

# Teaching Plan.

Department:ChemistryFaculty:-ScienceName of the Faculty:Dr. Kirti S. NralwadSubject :Chemistry

THEORY							
Term	Ι/	1	1	1	r		
Sr.N o	Class	Subject	Month	Topic covered	Topics to be covered		
	B.SC.F.Y. Organic + Inorganic Chemistr		JULY	Nomenclature of Organic Compounds	Nomenclature of Organic Compounds		
		у (I)	AUG	Basic Concepts In Organic Chemistry	Basic Concepts In Organic Chemistry		
			SEP	Alkanes and Cycloalkanes	Alkanes and Cycloalkanes		
			OCT	Alkenes, Dienes and Alkynes	Alkenes, Dienes and Alkynes		
			NOV	Alcohols and Epoxides	Alcohols and Epoxides		
	B.Sc.S.Y.	Organic + Inorganic Chemistr	JULY	Aromatic Carbonyl Compounds	Aromatic Carbonyl Compounds		
		y (VI)	AUG	Polymers	Polymers		
			SEP	Stereochemistr y	Stereochemistr y		
			ОСТ	Organic Synthesis via Enolates	Organic Synthesis via Enolates		
			NOV	Theory of Qualitative	Theory of Qualitative		
				Analysis	Analysis		
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	B.Sc.T.Y.	Organic + Inorganic	JULY	Heterocyclic Compounds	Heterocyclic Compounds		
		Chemistr y (XII)	AUG	Six-membered heterocyclics	Six-membered heterocyclics		
			SEP	Synthetic drugs and dyes	Synthetic drugs and dyes		
			OCT	Alkaloids, Vitamins and Pesticides	Alkaloids, Vitamins and Pesticides		
			NOV	Hard And Soft Acids And Bases	Hard And Soft Acids And Bases		
TERN	1 II		THEORY	7			
Sr.N o	Class	Subject	Month	Topic covered	Topics to be covered		
	B.SC.F.Y.	Organic + Inorganic Chemistr y (III)	DEC	Aromatic Hydrocarbons and Aromaticity	Aromatic Hydrocarbons and Aromaticity		
			JAN	Phenols & Haloalkene and Haloarene	Phenols & Haloalkene and Haloarene		
			FEB	Carboxylic Acid Derivatives	Carboxylic Acid Derivatives		
			MARCH	Study of P- block elements	Study of P- block elements		
	B.Sc.S.Y.	Organic + Inorganic Chemistr y (VIII)	DEC	Carbohydrates & Organic compounds of nitrogen	Carbohydrates & Organic compounds of nitrogen		
			JAN	Heterocyclic Compounds	Heterocyclic Compounds		

		FEB	Polynuclear Hydrocarbon	Polynuclear Hydrocarbon
		MARCH	Chemistry of Transition series elements	Chemistry of Transition series elements
B.Sc.T.Y.	Organic + Inorganic Chemistr y (XIV)	DEC	U. V. & I.R. Spectroscopy	U. V. & I.R. Spectroscopy
		JAN	NMR – Spectroscopy	NMR – Spectroscopy
		FEB	Amino acids, Peptides and Proteins	Amino acids, Peptides and Proteins
		MARCH	Synthetic Polymers and Molecular Rearrangemen ts	Synthetic Polymers and Molecular Rearrangement s

	<b>PRACTICALS</b> (In case of Science)					
Sr.N o	Class	Subject	Month	Topic covered	Topics to be covered	
	B.SC.F.Y.	Organic + Inorganic + Physical Chemistr y	June- March	Laboratory Course-I	Laboratory Course-I	
	B.SC.S.Y.	Organic + Inorganic Chemistr y	June- March	Laboratory Course-II	Laboratory Course-II	
	B.SC.T.Y.	Organic + Inorganic Chemistr	June- March	Laboratory Course-IV	Laboratory Course-IV	

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## FORMAT-14 2017-18

Student Strenght of Department : <b>Total :-</b> 141	<b>F.Y</b> . :-	82	S.Y.:-	38	<b>T.Y.:-</b> 21
F.Y. B.Sc = Practical Batches :-	04				
S.Y. B.SC = Practical Batches:-	02				
Total Departmental workload =	01				

## Name of the Teacher : Dr. Kirti S. Niralwad

Sr.N o	Class	Lectures	Practicals	To wor	otal kload	Extra workload
1	F.Y. B.Sc	02	01	06		
2	S.Y. B.Sc	02	01	06	18	00
3	T.Y. Bsc	02	01	06		

## Name of the Teacher : Mr.Pande .P.R.

Sr.N o	Class	Lectures	Practicals	To wor	otal kload	Extra workload
1	F.Y. B.Sc	02	02	10		
2	S.Y. B.Sc	02	01	06	22	02
3	T.Y. Bsc	02	01	06		

## FORMAT-15 2017-18

Faculty	Science			
Department	Chemistry			
Name of the Teacher	Dr. Kirti S	S. Niralwad		
Total Workload (03)	18	Lectures (06)	Practical's	

Sr. No	Class	Lectures	Practical's	Total workload	Extra workload
1	B.Sc. F.Y.	02	01	06	
2	B.Sc. S.Y.	02	01	06	
3	B.Sc. T.Y.	02	01	06	
	Total			18	00

Faculty	Science					
Department	Chemis	Chemistry				
Name of the Teacher	Mr. P.R	Mr. P.R.Pande				
Total Workload (03)	22	Lectures (05)	Practical's			

Sr. No	Class	Lectures	Practical's	Total workload	Extra workload
1	B.Sc. F.Y.	02	02	10	
2	B.Sc. S.Y.	02	01	06	
3	B.Sc. T.Y.	02	01	06	
	Total			22	02

Faculty	Science		
Department	Chemistr	у	
Name of the Teacher	Mr. M.S.I	Rathod	
Total Workload (03)	18	Lectures (06)	Practical's

Sr. No	Class	Lectures	Practical's	Total workload	Extra workload
1	B.Sc. F.Y.	02	01	06	
2	B.Sc. S.Y.	02	02	10	
3	B.Sc. T.Y.	02	00	02	
	Total			18	00