To, The principal Toshniwal A. C. S. College, Sengaon

Subject:- About the permission of certificate courses by the department of Chemistry.

Respected sir,

With reference to above Cited subject the department of Chemistry is going to conduct a certificate course for the academic year 2018-19 in Water Quality Analysis.

The course details have been attached here with in appendix-I

So please look in to the same and grant us the permission.

Thanking you

Yours Faithfully

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Certificate Course in Water Quality Analysis

Course Objectives

- · Understand what water quality and the parameters used to measure it
- Understand the importance of selecting sites for monitoring
- work site parameters
- Ability to survey water bodies to assess their present condition using appropriate sampling techniques
- Understanding of Legislative responsibilities in regards to water quality discharge from worksites
- Identify areas where water degradation or pollution exists and identify the cause or sources

Topics Covered

- Water quality and aquatic ecosystems
- Water quality monitoring and site selection
- Instrument calibration, quality control
- Physical and Chemical testing including; flow, temperature, turbidity, electrical conductivity, pH and dissolved oxygen
- Legislative objectives for water quality in Hingoli District

Participants will gain experience in using a range of manual and electronic water quality measuring equipment for onsite measurements. Upon completion participants will receive a certificate of participation.

Course Duration:

30 days (One hour per day)

Target Audience:

12th Pass Students

Course Instructors: Dr. Yogesh S. Nalwar, Mr. Trambak. U. Kendre

Venue:

Department of Chemistry, Toshniwal ACS College, Sengaon

Reference Books:

- Analytical Chemistry by H.Kaur, Pragati Prakashan, Meerut
 Text Book of Quantitative Inorganic Analysis by A.I. Vogel, IInd
 Edition, London, Longman
- Introduction to waste water Treatment Processes, Jindal M.



Shri Gajanan Shikshan Prasarak Mandal's Toshniwal Arts, Commerce & Science College, Sengaon.Dist Hingoli- 431542

DEPARTMENT OF CHEMISTRY

Certificate course In Water Analysis Syllabus.

C. No	Particular	No of Period		
Sr. No.	Unit I Chemistry of water development, hydrology, precipitation, rain, snow fall, water availability, requirement of water, Quality of surface water, ground water.	04		
2.	Unit II Impurities in water, standards of water quality for various requirements like potable, domestic use, industrial purpose, and agricultural purpose. Water treatment technologies – House hold water treatment, Municipal water treatment, industrial treatment, softening of water, Disinfection of water.	07		
3	Unit III Water Chemistry, Water management, water harvesting, and water recycling, Water pollution causes and remedies. Characteristics of waste water from industries.	04		
4	Unit IV PRACTICALS: Collection and preservation of samples from open well, tap, bore well, river, water treatment plants, waste water treatment plants, Determination of pH and Electrical Conductivity of water, Determination of Alkalinity, Determination of Hardness (Total, Permanent & Temporary), Identification of fresh water algae & protozoa by Microscopy.	15		
Total	TE BOOKS .	30		

REFERANCE BOOKS:

- 1. Standard Methods for Examination of Water & waste water APHA-AWWAWPCF
- 2. Manual of Water & waste water analysis, NEERI, Nagpur
- 3. Text book of water and waste water engineering by H.K. Hussen
- 4. Water supply & sanitary engineering by Birdie
- 5. Practical methods in ecology & Environmental science by R.K. Trivedi, P.K. Goel, C.L. Trisal.

Mr.T.U. Kendre
Assistant Professor
Department of Chemistry

Dr. Yogesh S. Nalwar
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Tost niwal Art's Commerce and
Science College, Sandson-431542

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Toshniwal Arts, Commerce & Science College, Sengaon Dist. Hingoli-431542 Department of Chemistry

Asst. Prof. Trambak U. Kendre (M. Sc., NET.) Assistant Professor E-Mail: kendre25788@gmail.com

M.No. +91-8275560046



Dr. Yogesh S. Nalwar (M. Sc. B.Ed., PhD) Head & Assistant Professor E-Mail: <u>ysnalwar@gmail.com</u> M.No. 9421292020

Annual Report of certificate course

Water Quality Analysis

Conducted by Department of Chemistry during

AY 2018-19

PREFACE:

Students, from our region are facing many problems of drinkable water especially in summer. To understand the causes of pollution of water and the parameters of water with which we could know the quality of water. Therefore we conduct the certificate course in "Water Quality Analysis" for the students of B.Sc. I, II & III year. The main motive is to aware of students the quality of drinkable water. Considering these facts department of chemistry has carried the 30 hour duration certificate course in AY 2018-19.

CONTENT:

The contents taught are categorically divided into followings:

- Water quality and aquatic ecosystems
- · Water quality monitoring and site selection
- Instrument calibration, quality control
- Physical and Chemical testing including; flow, temperature, turbidity, electrical conductivity, pH and dissolved oxygen
- Legislative objectives for water quality in Hingoli District

Duration of Course:

Conducted teaching and competent identification schedule of ~30 contact hours

Assessment & Evaluation:

Conducted ~30 marks MCQ test & session on competent identification **Participants:**

~13 students have participated into the course and have successfully completed the course Course Outcome:

Enrolled students have been successfully identified the main causes of water pollution and explained its pollutants, group of students assigned the task of water sampling and the how to do the analysis and identify the quality of it with the references.

Head

Department of Chemistry

Dr.Yogesh S.Nalwar
Head, Dept. of Chemistry
Toshniwal Art's Commerce and
Science College, Sandan 454

Toshniwal Arts, Commerce & Science College, Sengaon Dist. Hingoli-431542 Department of Chemistry

Asst. Prof. Trambak U. Kendre (M. Sc., NET.)
Assistant Professor
E-Mail: <u>kendre25788@gmail.com</u>
M.No. +91-8275564600



Dr. Yogesh S. Nalwar (M. Sc. B.Ed., PhD) Head & Assistant Professor E-Mail: <u>ysnalwar@gmail.com</u> M.No. 9421292020

List of students enrolled for certificate course during

AY 2018-19

Sr.No.	Students Name	Mobile Number
1	WAKLE MONUTAI RAJKUMAR	8975543158
2	WANARE PREETEE KASHIRAM	9850901866
3	GIRI DURGA ATMARAM	9112071036
4	KAWADE YOGESH SARJERAO	9623872035
5	NAYAKWAL SHYAM SARANGDHAR	9545128061
6	GORE KAMLESH MANOHAR	9657747074
7	PADOLE PRASAD DIGAMBAR	8888703021
8	PADOLE SHRIDHAR BHARATRAO	8378086361
9	DESHMUKH SHUBHAM NARAYANRAO	7507441282
10	DHAMANE PRASAD EKNATH	9673717202
11	GAIKWAD RAMESHWAR SANTOSH	7030132098
12	VITKARE SURAJ GOVIND	9503010906
13	PAWAR LAKHAN ASHROBA	9309750834

Dr. Yogesh S. Nalwar
Heep Entplent Of Chemistry
Tostaniwal Art's Commerce and
Science College, Segoggon-431542

Toshniwal Arts, Commerce & Science College, Sengaon Dist. Hingoli-431542 **Department of Chemistry**

Asst. Prof. Trambak U. Kendre (M. Sc., NET.) Assistant Professor

E-Mail: kendre25788@gmail.com M.No. +91-8275564600



Dr. Yogesh S. Nalwar (M. Sc. B.Ed., PhD) Head & Assistant Professor E-Mail: ysnalwar@gmail.com M.No. 9421292020

Feedback Analysis

Department of chemistry have continued the certificate course in water quality analysis for the benefit of the students and knowing the pollutants and it's the quality of drinkable water, the course lasted for ~30 contact hours and assessment of the students is done on the basis of score in 30 marks MCQ examination conducted by the department and successive hands on training during AY 2018-19. The course feedback analysis represents that:

- Course designing is very good and basic
- There should be more areas to collect sample
- Analysis and references are very useful
- Identification of quality water sources
- The course defined adds more knowledge to students

Overall it can be inferred that the certificate course is useful for all those enrolled students.

He Department of Olienistry Tost-niwal Art's Commerce and

conce College, simpannia 44442

Toshniwal Arts, Commerce & Science College, Sengaon Dist. Hingoli-431542 Department of Chemistry

Asst. Prof. Trambak U. Kendre (M. Sc., NET.) Assistant Professor E-Mail: <u>kendre25788@gmail.com</u> M.No. +91-8275564600



Dr. Yogesh S. Nalwar (M. Sc. B.Ed., PhD) Head & Assistant Professor E-Mail: <u>ysnalwar@gmail.com</u> M.No. 9421292020

Date: 29.09.2018

To,

The Principal,

Toshniwal ACS College,

Sengaon

Subject: Details about the certificate Course

Respected Sir,

With reference to the subject cited above here are the details about the certificate course which is running in our college through Chemistry department as below...

Title of the certificate Course : Certificate Course in Water Quality Analysis

2 Department : Chemistry

3 Enrolled Students : 13

4 Course Time Table : Monday 04.06 to 04.54 pm

5 Inauguration Date : 03.09.2018

6 Coordinator of the Course : Dr. Yogesh S. Nalwar

Kindly accept the same.

Thank You

Yours Faithfully

Dr. Yogesh S. Nalwar

Head

Department of Chemistry

Dr. Yogesh S. Nalwer

Head, Dopt. of Chemistry

Tust-niwal Art's "ommerce and Science College, sendant-451544



Shri Gajanan Shikshan Prasarak Mandal, Yeldari Camp (Linguistic (Marwadi) Minority Institute)

Re-accredited by NAAC with 'B' Grade

Toshniwal Arts, Commerce & Science College

DEPARTMENT OF CHEMISTRY

Sengaon Dist. Hingoli-431542 (MS)

Water Quality Analysis Certificate Course in

This is to certify that, Dr/Mr.

Toshniwal A.C.S. College,

on 2018-19. the Department of Chemistry, Toshniwal ACS College, Sengaon, Dist. Hingoli, (MS), India Sengaon has attended the Certificate Couse in "Water Quality Analysis" organized by

Course Co-coordinator Mr. T.U. Kendre

> Dr. Yogesh S. Nalwar Course Coordinator

> > Shri. S. G. Talnikar Principal

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