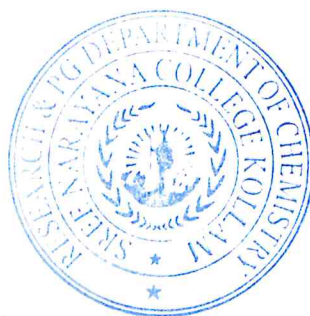


2018-2019

DEPARTMENT CERTIFICATE COURSE

CHEMISTRY OF WATER

QUALITY ANALYSIS



BROCHURE

SREE NARAYANA COLLEGE KOLLAM

Department of chemistry ,

Certificate course 2017-2018

CHEMISTRY OF WATER QUALITY ANALYSIS

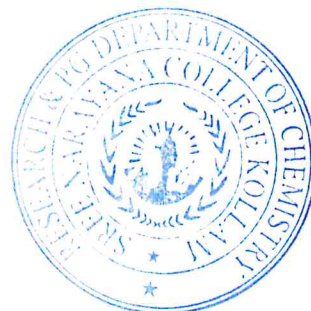


DURATION :6 months

Qualification: +2/ Equivalent

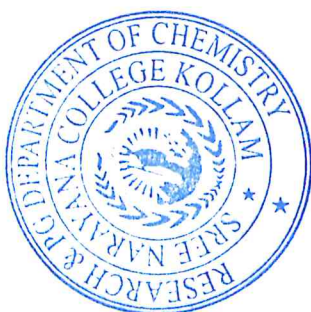
No AGE LIMIT

Contact:8129225858



**LIST OF APPLIED STUDENTS FOR THE CERTIFICATE COURSE
CHEMISTRY OF WATER QUALITY ANALYSIS 2017-2018**

SREE NARAYANA COLLEGE KOLLAM			
CERTIFICATE COURSE 2018-19			
Department:CHEMISTRY			
Name of Certificate course:		CHEMISTRY OF WATER QUALITY ANALYSIS	
Sl No.	Candidate Code	Name of Candidate	Department
1	CPWQA1	GOURI JAYAN	CHEMISTRY
2	CPWQA2	HARIPRIYA G	CHEMISTRY
3	CPWQA3	KRISHNAPRIYA S	CHEMISTRY
4	CPWQA4	LEKSHMI A	CHEMISTRY
5	CPWQA5	MEKHA S PRAKASH	CHEMISTRY
6	CPWQA6	ADITHYA P S	CHEMISTRY
7	CPWQA7	PARAMESWARI P	CHEMISTRY
8	CPWQA8	PARVATHY VA	CHEMISTRY
9	CPWQA9	REJITH R	CHEMISTRY
10	CPWQA10	ROHITH H	CHEMISTRY
11	CPWQA11	SIVAPRIYA. A	CHEMISTRY
12	CPWQA12	SONA SANTHOSH	CHEMISTRY
13	CPWQA13	VISHNU K S	CHEMISTRY
14	CPWQA14	ABHIRAM SIVAPRASAD	CHEMISTRY
15	CPWQA15	ADARSH S	CHEMISTRY
16	CPWQA16	AKHIL BABU	CHEMISTRY

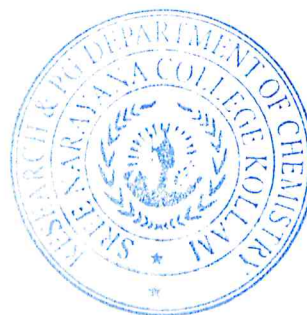



 Principal
 Sree Narayana College
 Kollam



**LIST OF SELECTED STUDENTS FOR THE CERTIFICATE COURSE
CHEMISTRY OF WATER QUALITY ANALYSIS**

SREE NARAYANA COLLEGE KOLLAM				
CERTIFICATE COURSE 2018-19				
Department:CHEMISTRY				
Name of Certificate course:		CHEMISTRY OF WATER QUALITY ANALYSIS		
No.of students enrolled: 16				
No. of students SELECTED:16				
Sl No.	Candidate Code	Name of Candidate	Department	Status
1	CPWQA1	GOURI JAYAN	CHEMISTRY	SELECTED <i>Gouridayan</i>
2	CPWQA2	HARIPRIYA G	CHEMISTRY	SELECTED <i>Haripriya</i>
3	CPWQA3	KRISHNAPRIYA S	CHEMISTRY	SELECTED <i>KS</i>
4	CPWQA4	LEKSHMI A	CHEMISTRY	SELECTED <i>Leakshmi</i>
5	CPWQA5	MEKHA S PRAKASH	CHEMISTRY	SELECTED <i>MP</i>
6	CPWQA6	ADITHYA P S	CHEMISTRY	SELECTED <i>Aditya</i>
7	CPWQA7	PARAMESWARI P	CHEMISTRY	SELECTED <i>Parameswari</i>
8	CPWQA8	PARVATHY VA	CHEMISTRY	SELECTED <i>Parvathy</i>
9	CPWQA9	REJITH R	CHEMISTRY	SELECTED <i>RJR</i>
10	CPWQA10	ROHITH H	CHEMISTRY	SELECTED <i>Rohith</i>
11	CPWQA11	SIVAPRIYA. A	CHEMISTRY	SELECTED <i>SA</i>
12	CPWQA12	SONA SANTHOSH	CHEMISTRY	SELECTED <i>Sons</i>
13	CPWQA13	VISHNU K S	CHEMISTRY	SELECTED <i>Vishnu</i>
14	CPWQA14	ABHIRAM SIVAPRASAD	CHEMISTRY	SELECTED <i>Ab</i>
15	CPWQA15	ADARSH S	CHEMISTRY	SELECTED <i>Adarsh</i>
16	CPWQA16	AKHIL BABU	CHEMISTRY	SELECTED <i>Akhil Babu</i>



Syllabus .

CERTIFICATE COURSE

(Offered By Department of Chemistry, S N College, Kollam)

Chemistry of water quality analysis

Total Hours: 30

MODULE I. Analytical instruments –Brief outline. Flame emission spectro photometer (FES), UV-Vis spectrophotometer, Atomic absorption spectrophotometer (AAS), Biological analyzers .Autoclave, incubator, water analyzer for pH, salinity and electrical conductance ; Units in which the quality parametrs are reporting during each analyzing.
(4 hrs)

MODULE II. : Soil and Water parameters – Potable drinking water and its specifications, Organic matter in soil/ pE and pH diagrams. Physical, chemical and bacterial measures of water quality Problems of groundwater contamination by As and F – Remedial measures for their treatment. The general occurrence of various constituents in groundwater, graphical representation of groundwater quality data – Collin’s diagram. Quality of groundwater for domestic, irrigational and agricultural uses. Hardness of water, alkalinity, effect of anions and cations – causes and effects – methods of estimation – removal of hardness Domestic water treatment – Sewage – Sewage analysis - Sewage treatment.
(5hrs)

MODULE IV : Inorganic materials leading to toxicity of water – Its Hazardous value, safety measures and precautions. Maximum permissible limits of toxic contaminants, Possible Reasons for water and soil contamination, Control of water pollution – ISI/BSI standards of drinking water
(3 hrs)

MODULE V : Organic materials causing water pollution, Chemically oxygen demanded COD, Biologically oxygen demanded BOD analyses. Adverse effect in biological system– pesticides , detergents, antibiotics, fertilizers. Detailed study about detergent contamination in ground water
(1hrs)

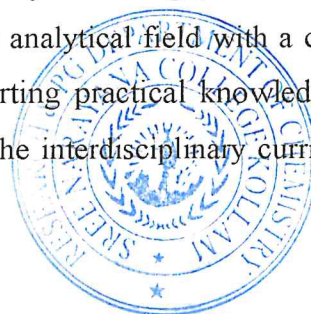
P.G. and Research department of Chemistry, Sree Narayana College, Kollam

Certificate course in chemistry of water quality analysis

The main problem faced by the world during last three decades and increasing with every passing year is the permanent and crucial damage to earth by environmental pollution due to rapid industrialization and urbanization. This pollution constitutes air, water, soil, sound and light. Among these, the most threatening one is water pollution. Water pollution caused by the introduction of any undesirable physical, chemical or microbiological material into water bodies like lakes, rivers has made marine life no longer hospitable. There are two types of contamination sources: point and non-point sources. Point sources are the source of contamination, that we can point directly which include humans who pollute water with large scale disposal of industrial waste products, garbage, landfills, leaking gasoline storage tanks, leaking septic tanks, accidental spills and other household waste. Non-point sources can be less apparent which include naturally occurring contaminants, such as excess metal ions concentration like iron, arsenic, thorium, uranium, cobalt, zinc and radiological runoff from parking lots, organic pollutants like antibiotic, pesticides and fertilizers that infiltrate the soil and reached to aquifer, acid rain, thermal pollution and the depletion of dissolved oxygen exaggerate could also pollute the water bodies.

Even though one by third of the universes constitute water, the scarcity of water for drinking and other necessity is a major concern in the present social system due to the water pollution. Hence the purification of water from pollutants is very necessary present situation. Though the ground water is mainly used for the drinking purpose, other water surface sources like rivers, canals, and lakes are also exploiting for the same purpose. Chemical, physical, biological and physiological contaminants are present in the polluted water, among these, the chemical pollutants in the water cause more adverse effect to the aquatic system than any other type of contaminants. The aim of the course is to *'make a Post graduate science student aware about analytical procedures and permissible limits of contaminants in soil and water'*.

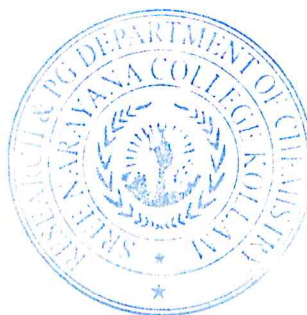
The certificate course in **Chemistry of Water Quality Analysis (CWQA)**, offered by the Research and post graduate department of Chemistry, Sree Narayana College, Kollam provides professional training and awareness for careers Water quality analytical field with a chemistry background. This mission could be achieved through imparting practical knowledge about water contamination and doing analysis of real samples. The interdisciplinary curriculum is



**LIST OF STUDENTS PASSED THE CERTIFICATE COURSE
CHEMISTRY OF WATER QUALITY ANALYSIS**

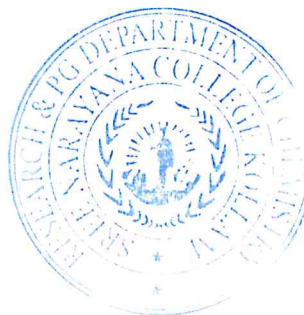
SREE NARAYANA COLLEGE KOLLAM				
CERTIFICATE COURSE 2018-19				
Department:CHEMISTRY				
Name of Certificate course:		CHEMISTRY OF WATER QUALITY ANALYSIS		
No.of students enrolled: 16				
No. of students SELECTED:16				
Sl No.	Candidate Code	Name of Candidate	Department	Status
1	CPWQA1	GOURI JAYAN	CHEMISTRY	PASSED
2	CPWQA2	HARIPRIYA G	CHEMISTRY	PASSED
3	CPWQA3	KRISHNAPRIYA S	CHEMISTRY	PASSED
4	CPWQA4	LEKSHMI A	CHEMISTRY	PASSED
5	CPWQA5	MEKHA S PRAKASH	CHEMISTRY	PASSED
6	CPWQA6	ADITHYA P S	CHEMISTRY	PASSED
7	CPWQA7	PARAMESWARI P	CHEMISTRY	PASSED
8	CPWQA8	PARVATHY VA	CHEMISTRY	PASSED
9	CPWQA9	REJITH R	CHEMISTRY	PASSED
10	CPWQA10	ROHITH H	CHEMISTRY	PASSED
11	CPWQA11	SIVAPRIYA. A	CHEMISTRY	PASSED
12	CPWQA12	SONA SANTHOSH	CHEMISTRY	PASSED
13	CPWQA13	VISHNU K S	CHEMISTRY	PASSED
14	CPWQA14	ABHIRAM SIVAPRASAD	CHEMISTRY	PASSED
15	CPWQA15	ADARSH S	CHEMISTRY	PASSED
16	CPWQA15	AKHIL BABU	CHEMISTRY	PASSED

Tushar H. Kurayil
Principal
Sree Narayana College
Kollam



MARKLIST

SREE NARAYANA COLLEGE KOLLAM				
CERTIFICATE COURSE 2018-19				
Department: CHEMISTRY				
Name of Certificate course: CHEMISTRY OF WATER QUALITY ANALYSIS				
Sl No.	Candidate Code	Name of Candidate	MARK S OBTAINED	
			THEORY(50)	PRACTICAL(50)
1	CPWQA1	GOURI JAYAN	41	50
2	CPWQA2	HARIPRIYA G	40	49
3	CPWQA3	KRISHNAPRIYA S	46	48
4	CPWQA4	LEKSHMI A	47	19
5	CPWQA5	MEKHA S PRAKASH	48	46
6	CPWQA6	ADITHYA P S	42	49
7	CPWQA7	PARAMESWARI P	43	48
8	CPWQA8	PARVATHY VA	42	49
9	CPWQA9	REJITH R	46	46
10	CPWQA10	ROHITH H	45	46
11	CPWQA11	SIVAPRIYA. A	43	48
12	CPWQA12	SONA SANTHOSH	40	47
13	CPWQA13	VISHNU K S	45	49
14	CPWQA14	ABHIRAM SIVAPRASAD	46	49
15	CPWQA15	ADARSH S	42	50



REPORT

THE CERTIFICATE COURSE ON CHEMISTRY OF WATER QUALITY ANALYSIS

The Certificate Course on Chemistry of water quality analysis by Department of Chemistry Sree Narayana college, Kollam, 28th January 2018 to 25th JULY at Department of Chemistry Sree Narayana college, Kollam. The total Number of Participants was 16 and was our graduate students. They got certificates and the aim was to increase their academic grade points. The Brochure, and other details furnished. The number of seats were limited and gave admission to all the applied students, All the students were passed the examination conducted. Department faculties handled the class in fixed schedule. Total teaching hour was 30 hours among these hours 16 practical hours included.

Abdul Karim
Principal
Sree Narayana College
Kollam





Sree Narayana College, Kollam

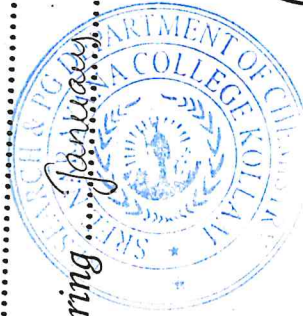
Affiliated to the University of Kerala

(Accredited by NAAC Grade 'A')

(ATAL 'A' Band Institution)

CERTIFICATE

This is to certify that Mr./Ms./Mrs. *Govvi Jayan*.....
 Reg. No. *CPWQA1*..... Department of *Chemistry*.....
 completed certificate course in *Chemistry Of Water Quality Analysis*.....
 during *January*..... 2018 to *July*..... 2019



COURSE CO-ORDINATOR

PRINCIPAL



Sree Narayana College, Kollam

Affiliated to the University of Kerala

(Accredited by NAAC Grade 'A')

(ATAL 'A' Band Institution)

CERTIFICATE

This is to certify that Mr./Ms./Mrs. *H. Haripriya G.*
 Reg. No. *CPWRA 2* Department of *Chemistry* has successfully
 completed certificate course in *Chemistry of Water Quality Analysis*

 during *January* 2018 to 2019



[Signature]

COURSE CO-ORDINATOR

PRINCIPAL



Sree Narayana College, Kollam

Affiliated to the University of Kerala

(Accredited by NAAC Grade 'A')

(ATAL 'A' Band Institution)

CERTIFICATE

This is to certify that Mr./Mrs. *Jeevitha Periyal*.....
 Reg. No. *C.P.W.R.A.3*..... Department of *Chemistry*..... has successfully
 completed certificate course in *Chemistry of Water Quality Analysis*.....
 during *January* 2018 to *July* 2019



[Signature]

COURSE CO-ORDINATOR

PRINCIPAL