



Sree Narayana College, Chengannur

Affiliated to University of Kerala
NAAC Accredited With B Grade

*Certificate Course on
Water Quality Analysis
2019-20*



**POST GRADUATE DEPARTMENT
OF CHEMISTRY**

Course coordinator: Smt. Jisha Sreedharan
Assistant Professor
Department of Chemistry
S.N. College, Chengannur
Contact Number: 9446754034

ORGANISING COMMITTEE

SRI. VELLAPPALLY NADESAN
(PATRON)

Dr.M.S.LATHA

(PRINCIPAL IN CHARGE)

DR. VENU.S

(IQAC COORDINATOR)

DR. JISHA SREEDHARAN

(COURSE COORDINATOR)

DR. RESHMI R

DR. SMITHA SASIDHARAN

DR. ANJU K.S.

Smt. KAVITHA S

Smt. RESHMI RENKAN

ABOUT DEPARTMENT OF CHEMISTRY

The Post Graduate Department of Chemistry ever since its establishment remains one of the major departments of the college, which offers high quality teaching. The department is equipped with a wide range of facilities to aid the students to do well in their performance. We cordially invite the interested undergraduate and post graduate students to join the Certificate course on 'Water Quality Analysis' implemented by the Post Graduate Department of Chemistry in association with IQAC, S N College, Chengannur.

ABOUT THE CERTIFICATE COURSE

Water quality analysis is the study of the physical, chemical, and biological properties of water. It is an essential tool for protecting human health, ensuring the safety of food and beverages, protecting the environment, and managing water resources. The specific methods that are used in water quality analysis depend on the purpose of the analysis and the type of water that is being tested. The course covers the fundamental concepts, techniques, and methods used to assess and monitor the quality of water in various environments.

WHO SHOULD ATTEND:

The course is open to all post graduate and undergraduate students.

COURSE DURATION:

30 hours during Jan to Feb. 2020.

[Theory (15 hours), Practical (15 hours)]

COURSE FEES:

Rs. 250/-

ASSESSMENT:

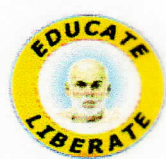
Assignment and MCQ

CERTIFICATE OF COMPLETION:

Receive a certificate after successfully completing the course.

ABOUT THE COLLEGE

Sree Narayana College, Chengannur, named after the great social reformer Sree Narayana Guru, is a major centre for higher education to the rural community in the vicinity. The college was established in 1981. The vision of our College is to provide 'Liberation through Education' and 'Enlightenment through Education'. The college offers five undergraduate and three post graduate courses.



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Minutes of the Meeting of Board of Studies

Attendees:-

1. Dr.M.S.Latha (Principal)
2. Dr. K Sreelatha (Chairman, Board of studies)
3. Dr. Venu.S (IQAC Coordinator& HOD, Department of Chemistry)
4. Smt.Jisha Sreedharan (Course Coordinator)

Venue: Principal's Chamber

Date & Time: 25/09/2019 at 2.00pm

Agenda:

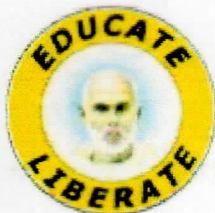
1. Review of Certificate course proposal

Minutes:

1. Reviewed the certificate course proposal submitted by Department of Chemistry.
2. Approved the syllabus and proposal of the certificate course on "Water Quality Analysis".



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SREE NARAYANA COLLEGE
CHENGANNUR



Estd: 1981
Sree Narayana College Chengannur
Alapuzha, Kerala

POST GRADUATE DEPARTMENT OF CHEMISTRY
CERTIFICATE COURSE: WATER QUALITY ANALYSIS (CH19WQA)

Relevance of Water Quality Analysis

- Water quality analysis is the study of the physical, chemical, and biological properties of water. It is an essential tool for protecting human health, ensuring the safety of food and beverages, protecting the environment, and managing water resources.
- The specific methods that are used in water quality analysis depend on the purpose of the analysis and the type of water that is being tested.

Objectives

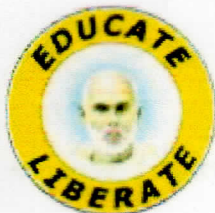
This course aims to provide students with a deep understanding of water quality analysis. It covers the fundamental concepts, techniques, and methods used to assess and monitor the quality of water in various environments. The syllabus will include both theoretical knowledge and practical hands-on experience, enabling students to evaluate water quality data and make informed decisions about water management and conservation.

The following are some of the specific topics that will be covered in the course:

- The importance of water quality analysis
- The different types of water analysis
- The physical, chemical, and biological properties of water
- The factors that affect water quality
- The methods used to determine the quality of water
- The interpretation of water analysis results
- The application of water quality analysis

The course will also include a number of practical exercises, such as:

- Conducting water quality tests
- Identifying the different physical, chemical, and biological properties of water
- Using software to analyse water quality data



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Sree Narayana College Chengannur
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- Using software to analyse water quality data

Reference

1. Chemical Toxicology – Zulfikar S Patel, Dominant Publishers and Distributors (2011)
2. Principles and Practice of Analytical Chemistry- Fifield and Kealey, Blackwell publishers (2000)
3. Introduction to environmental toxicology – Impacts of Chemicals upon Ecological Systems, W.G Landis and Ming – Ming – Ho Yu, (2003). Lewis Publishers, Boca Raton.
4. Manahan SE, Environmental Chemistry (6th Ed.), Lewis Publishers, USA
5. Schwarzenbach, Rene P., Phillip M. Gschwend, and Dieter M. Imboden, Environmental Organic Chemistry, John Wiley & Sons, New York, 1993.
6. Simpson, Peter, Basic Concepts in Organic Chemistry—A Programmed Learning Approach, Chapman and Hall, London, 1994.

❖ **Practical: Laboratory tests for water quality parameters :**

(15 hours)

1. Determination of pH & Conductivity.
2. Determination of alkalinity.
3. Determination of Ca & Mg hardness in water using EDTA titrimetric method.
4. Determination of chloride & Residual Chlorine.
5. Determination of Dissolved Oxygen in water.



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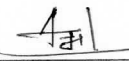
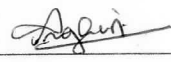


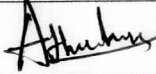
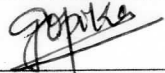
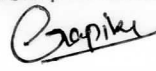
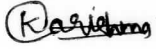
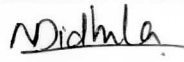
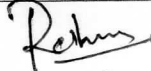

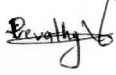
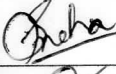

SREE NARAYANA COLLEGE CHENGANNUR
DEPARTMENT OF CHEMISTRY

Certificate Course on "Water Quality Analysis"
(CH19WQA)

Duration: 3 months

Year: 2019-20


Student Enrolment for the certificate course

| Sl No. | Candidate Code | Name | Signature |
|--------|----------------|--------------------|---|
| 1 | 63518128001 | AISWARYA.S |  |
| 2 | 63518128002 | AJIL.S.T |  |
| 3 | 63518128003 | ANJANA RAJ T |  |
| 4 | 63518128004 | ARYA BABU |  |
| 5 | 63518128005 | ATHIRA A |  |
| 6 | 63518128006 | ATHULYA A |  |
| 7 | 63518128007 | GOPIKA G KRISHNAN |  |
| 8 | 63518128008 | GOPIKA SATHYAN K S |  |
| 9 | 63518128009 | KARISHMA H |  |
| 10 | 63518128010 | MIDHILA P |  |
| 11 | 63518128011 | RESHMA PUSHKARAN |  |
| 12 | 63518128012 | REVATHY KRISHNAN |  |
| 13 | 63518128013 | REVATHY VENUGOPAL |  |
| 14 | 63518128014 | SNEHA HARIDAS |  |
| 15 | 63518128015 | VISHNUPRIYA M B |  |


Course Coordinator


Head of the Department




PRINCIPAL
SREE NARAYANA COLLEGE
CHENGANNUR



ATTENDANCE REGISTER FOR THE

| No. | NAME | Designation Candidate Code | | | | | | | | | | | | | |
|-----|----------------------|----------------------------------|--------|---|---|--------|---|---|---|---|---|---------|---------|----|----|
| | | | ✓ 1 | 2 | 3 | ✓ 4 | 5 | 6 | 7 | 8 | 9 | ✓ 10 | ✓ 11 | 12 | 13 |
| 1. | AISWARYA .S. | 63518 128001 | X | | | X | | | | | a | X | | | |
| 2. | AJIL .S.T | 128002 | X | | | X | | | | | X | X | | | |
| 3. | ANTANA RAJ.T | 128003 | X | | | X | | | | | a | X | | | |
| 4. | ARYA BABU | 128004 | X | | | X | | | | | X | X | | | |
| 5. | ATHIRA .A | 128005 | X | | | X | | | | | X | X | | | |
| 6. | ATHULYA .A | 128006 | X | | | X | | | | | X | X | | | |
| 7. | GODPIKA .G. KRISHNAN | 128007 | X | | | X | | | | | X | X | | | |
| 8. | GODPIKA SATHYAN K.S. | 128008 | X | | | X | | | | | X | X | | | |
| 9. | KARISHMA .H. | 128009 | X | | | X | | | | | X | X | | | |
| 10. | MIDHILA .P | 128010 | X | | | X | | | | | X | X | | | |
| 11. | RESHMA PUSHKARAN | 128011 | X | | | X | | | | | X | X | | | |
| 12. | REVATHY KRISHNAN | 128012 | X | | | X | | | | | X | X | | | |
| 13. | REVATHY VENUGOPAL | 128013 | X | | | X | | | | | X | X | | | |
| 14. | SNEHA HARIDAS | 128014. | X | | | X | | | | | X | X | | | |
| 15. | VISHNUPRIYA .M.B. | 128015 | X | | | X | | | | | X | X | | | |

MONTH OF October 2019

| ✓ 14 | ✓ 15 | 16 | 17 | ✓ 18 | 19 | 20 | 21 | ✓ 22 | 23 | ✓ 24 | 25 | 26 | 27 | ✓ 28 | 29 | 30 | ✓ 31 | Working Days | Days Present | Days absent | Leave Taken | Remarks |
|---------|---------|----|----|---------|----|----|----|---------|----|---------|----|----|----|---------|----|----|---------|--------------|--------------|-------------|-------------|---------|
| X | X | | | X | | | | X | | X | | | | X | | | X | 11 | 10 | 1 | | |
| X | X | | | X | | | | X | | X | | | | X | | | X | 11 | 11 | 0 | | |
| X | X | | | X | | | | X | | X | | | | X | | | X | 11 | 10 | 1 | | |
| X | X | | | X | | | | X | | X | | | | X | | | X | 11 | 11 | 0 | | |
| X | X | | | X | | | | X | | X | | | | X | | | X | 11 | 11 | 0 | | |
| X | X | | | X | | | | X | | X | | | | X | | | X | 11 | 11 | 0 | | |
| X | X | | | X | | | | X | | X | | | | X | | | X | 11 | 11 | 0 | | |
| X | X | | | X | | | | X | | X | | | | X | | | X | 11 | 11 | 0 | | |
| X | X | | | X | | | | X | | X | | | | X | | | X | 11 | 11 | 0 | | |
| X | X | | | X | | | | X | | X | | | | X | | | X | 11 | 11 | 0 | | |
| X | X | | | X | | | | X | | X | | | | X | | | X | 11 | 11 | 0 | | |
| X | X | | | X | | | | X | | X | | | | X | | | X | 11 | 11 | 0 | | |
| X | X | | | X | | | | X | | X | | | | X | | | X | 11 | 11 | 0 | | |



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MONTH OF November 20 19

| 14 | ✓ 15 | 16 | 17 | ✓ 18 | 19 | 20 | ✓ 21 | 22 | 23 | 24 | ✓ 25 | 26 | 27 | ✓ 28 | ✓ 29 | 30 | 31 | Working Days | Days Present | Days absent | Leave Taken | Remarks |
|----|------|----|----|------|----|----|------|----|----|----|------|----|----|------|------|----|----|--------------|--------------|-------------|-------------|---------|
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| X | | | | X | | | X | | | | X | | | X | a | | | 11 | 10 | 1 | | |
| X | | | | X | | | X | | | | X | | | X | X | | | 11 | 11 | 0 | | |
| X | | | | X | | | X | | | | X | | | a | x | | | 11 | 10 | 1 | | |
| X | | | | X | | | X | | | | X | | | X | X | | | 11 | 10 | 1 | | |
| X | | | | X | | | X | | | | X | | | X | X | | | 11 | 11 | 0 | | |
| X | | | | X | | | X | | | | X | | | a | x | | | 11 | 10 | 1 | | |
| X | | | | X | | | X | | | | X | | | X | X | | | 11 | 11 | 0 | | |
| X | | | | X | | | X | | | | X | | | X | X | | | 11 | 11 | 0 | | |
| X | | | | X | | | X | | | | X | | | X | X | | | 11 | 11 | 0 | | |
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ATTENDANCE REGISTER FOR THE

| No. | NAME | Designation | 1 | ✓ 2 | 3 | 4 | ✓ 5 | 6 | 7 | 8 | ✓ 9 | 10 | ✓ 11 | 12 | ✓ 13 |
|-----|---------------------|-------------|---|--------|---|---|--------|---|---|---|--------|----|---------|----|---------|
| 1. | Aiswarya S. | | | X | | | X | | | | X | | X | | X |
| 2. | Ajil S.T. | | | X | | | X | | | | X | | X | | X |
| 3. | Anjana Raj T | | | X | | | X | | | | X | | X | | X |
| 4. | Arya Babu | | | X | | | X | | | | X | | X | | X |
| 5. | Athira A. | | | X | | | X | | | | X | | X | | X |
| 6. | Athulya A. | | | X | | | X | | | | X | | X | | X |
| 7. | Gopika G. Krishnan | | | X | | | X | | | | X | | X | | X |
| 8. | Gopika Sathyan K.S. | | | X | | | X | | | | X | | X | | X |
| 9. | Karushma H. | | | X | | | X | | | | X | | X | | X |
| 10. | Midhila P. | | | X | | | X | | | | X | | X | | X |
| 11. | Reshma Pushkaran. | | | X | | | X | | | | X | | X | | X |
| 12. | Revathy Krishnan. | | | X | | | X | | | | X | | X | | X |
| 13. | Revathy Venugopal | | | X | | | X | | | | X | | X | | X |
| 14. | Sneha Haridas. | | | X | | | X | | | | X | | X | | X |
| 15. | Visbnupriya M.B. | | | X | | | X | | | | X | | X | | X |

MONTH OF December 2019

| 14 | 15 | ✓ 16 | ✓ 17 | ✓ 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | Working Days | Days Present | Days absent | Leave Taken | Remarks |
|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------|--------------|-------------|-------------|---------|
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| | | X | X | X | | | | | | | | | | | | | | 8 | 8 | 0 | | |
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| | | X | a | X | | | | | | | | | | | | | | 8 | 7 | 1 | | |
| | | X | X | X | | | | | | | | | | | | | | 8 | 7 | 1 | | |
| | | X | X | X | | | | | | | | | | | | | | 8 | 7 | 1 | | |
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