

Department of Chemistry
Mary Matha Arts & Science College Mananthavady
Certificate Course

WATER QUALITY ASSESSMENT SYLLABUS

Course Code	Theory	Practical	Time
CCWQAMMCHE19	8 Hours	22 Hours	3.30 to 4.30

Programme Description

Water analysis is a method of analysing water to estimate the purity of drinking water. Water Analysis is an extremely important aspect and the importance of determining the quality of the Water we use in our daily life can be well understood if we draw some focus of exactly how big and essential role Water plays in the day to day activities of a human life. Water is a vitally important component important to every aspect of our lives.

Learning Objectives

At the end of the course the student will be able to:

- Develop awareness about quality criteria and standards for water, and their relation to public health and environment.
- Understand important parameters for measuring water quality.
- Know about the methods for the determination of water quality parameters.

Syllabus

- I. **Fundamentals of environmental protection and pollution control (8 hours)**
Segments of environment, Air, water and soil pollution, Water resources, water pollution, Important water Quality parameters and methods for their determination - turbidity, color, taste, pH, acidity, alkalinity, chemical constituents, hardness, dissolved oxygen etc., water sampling, standard for drinking water as per BIS specifications, household water treatment and safe storage.
- II. **Practical - Laboratory tests for water quality monitoring (15 hours)**
Determination of pH and conductivity, Test for acidity and alkalinity, Test for total hardness, Test for chloride, calcium, iron etc., calculation of magnesium content and total solids.
- III. **Project (7 hours)**
Analysis of water samples collected from different areas.