



Asia Masters Center

Drinking Water Quality Microbiology Tests



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Drinking Water Quality Microbiology Tests

➔ Course Objective

- provide in-depth understanding of all key issues relevant to a proper estimation of the microbiological quality of water from different sources and different uses;
- equip participants with the tools needed to manage water quality effectively;
- familiarise participants with the latest practical laboratory methods and techniques for the detection of indicators and pathogens in water, and
- give a grounding in the function and use of Geographic Information Systems (GIS) in water quality management.

➔ Target Audience

- Engineers
- Government staff
- Private company staff which is related to water industry.

Course Outline

Day 1

Talk 1

- Brief introduction of ABI

Talk 2

- Basic theory of Microbiology Analysis for water sample

Practical 1: Microbiology Analysis

- Media preparation and basic microbiology techniques
- Total Plate Count
- Detection of E.Coli and Coliform
- Detection of Salmonella
- Detection of Staphylococcus aureus

Day 2

Talk 3

- Introduction of Kjeldahl method and Overview of Kjeltec 8200 for determination of nitrogen in water sample

Practical 1

- Determination of Nitrogen in drinking water
- Alkali solution preparation
- Receiver solution preparation
- Indicator solution preparation
- Scrubber unit solution preparation

Practical 2

- Determination of Nitrogen
- Digestion of sample using FOSS Tecator Digestion System
- Setting up FOSS Kjeltec Distillation Unit with solutions

Day 3

Practical 1

- Microbiology
- Enumeration of E.Coli and Coliform
- Detection of Salmonella sp. (cont.)

Practical 2

- Microbiology
- Enumeration of Salmonella sp.
- Detection of Staphylococcus aureus (cont.)

Practical 3

- Determination of Nitrogen
- Titration of distillate
- Calculation of Nitrogen and presentation of results

Day 4

Talk 3

- Introduction and Overview of Inductively coupled plasma mass spectrometry (ICP-MS)

Practical 1

- Determination of heavy metal and mineral
- Sample preparation and digestion of sample in nitric acid with microwave digester
- Preparation of calibration standard solution for ICP-MS analysis

Practical 2

- Microbiology
- Enumeration of microorganism in Total Plate Count
- Enumeration of Staphylococcus aureus

Practical 3

- Determination of heavy metal and mineral
- Familiarization with ICP-MS system and creating the project

Day 5

Practical 1

- Determination of heavy metal and mineral
- Run analysis of heavy metal and mineral using ICPMS

Practical 2

- Determination of heavy metal and mineral
- Plot calibration curve and perform data
- interpretation for heavy metal and mineral
- Q & A Session

➤ The Feature Of Asia Master Training And Development Center

- we pick up the customer from the airport to the hotel.
- we give the participant training bag includes all the necessary tools for the course.
- Working within groups to achieve the best results.
- All our courses are confirmed and we do not postpone or cancel the courses regardless of the number of participants in the course.
- We can assist you in booking hotels at discounted prices if you wish to book through us.
- We offer the certificate from Asia Masters Center for Training and Administrative Development.

➔ **The Cost Of The Training Program Includes The Following:**

- 1) Scientific article on flash memory.
- 2) Training Room.
- 3) Training.
- 4) Coffee break.
- 5) The training bag includes all the tools for the course.

Price (USD)

**Communicate with the training department
to know the participation fees**

➤ **There are offers and discounts for groups**

The details of the bank account

Bank name: CIMB Bank Berhad

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