
Environmental Health

ENVIRONMENTAL AND OCCUPATIONAL HEALTH LABORATORY

INTRODUCTION

This lab enables students to learn the operating principles, advantage and limitation of various types of equipment used to evaluate environmental and occupational hazards.

EQUIPMENT AND INSTRUMENTS

- Sound Level Meter
- Logging Noise Dose Meter
- Integrating Dose Meters
- Sound Survey Meter
- Dust Scan Scout Model 3020 Monitor
- Global Thermometer Digital Thermo-Anemometer
- Digital Thermo-Hygrometer
- Area Heat Stress Monitor Hs-32
- Gas Detector (OMNI – 4000)
- Luminous Intensity Meter (545)
- Spirometer Vitalograph 2120
- Radiation Meter ND – 2000
- Personal Air Sampler APEX
- Personal Air Monitor AFC123

EXPERIMENTS

- All experiments are conducted according to the standard methods for environmental and occupational hazards sampling, analysis and measurements

TESTS AND SERVICES

- Noise Assessment
- Environmental Dust Assessment

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- Thermal Environment Assessment
 - Environmental Gas Assessment
 - Environmental Light Assessment
 - Pulmonary Function Indices Assessment
 - Radiation Detection
 - Air Sampling and Analysis

WATER ANALYSIS LABORATORY

INTRODUCTION

This lab enables students to conduct all routine analysis for drinking, swimming pool, wastewater, and industrial waters.

EQUIPMENT AND INSTRUMENTS

- Hach DR 2800
- Digital Titrates
- Thermo-Orion 4 Star Meters
- Ion Selective Electrode for Measurements of Ammonia, Nitrates, Fluorides
- Dissolved Oxygen Meter Equipped with BOD Measurement Kit
- Oxidation Reduction Potential Meter
- Portable Residual Chlorine Meter

EXPERIMENTS

- All experiments are conducted according to the standard methods for examination of water and wastewater and USEPA standard methods.

TESTS AND SERVICES

Measurements of the Following Parameters:

- pH and Turbidity
- Color and Conductivity
- Alkalinity, Chlorides and Fluorides
- Hardness, Nitrate, Nitrite, Ammonia, Iron and Manganese

ENVIRONMENTAL MICROBIOLOGY LABORATORY

INTRODUCTION

The Environmental Microbiology Laboratory exposes students to actual field settings through applying the standard methods for aseptic techniques for microbiological sample collection, preservation, and examination. The Environmental Microbiology Laboratory offers the opportunity for students to identify, enumerate, and isolate different microorganisms relevant to the environmental health field (e.g. water, wastewater, indoor and outdoor air samples).

EQUIPMENT AND INSTRUMENTS

- Autoclaves
- Anaerobic Jars
- Centrifuges
- Refrigerators
- Freezers
- Oven
- Water Bath
- Balance
- Incubator
- Microscopes
- Colony Counters
- Stomacher
- pH Meter
- Media, Chemicals, Diagnostic kits, APE-20 and Reagents

EXPERIMENTS

- All experiments are conducted according to the standard methods for air, water, and food examination

TESTS AND SERVICES

- Heterotrophic Plate Count
- MPN of Total Coliforms
- MPN of Faecal Coliforms
- MPN of Enterococci

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- Staphylococcus Aureus in Food Samples
 - Indoor and Outdoor Microbial Air Count