



Department of Microbiology

KOHSAR UNIVERSITY MURREE



Certifications and Short Courses

1. Title: CELL AND TISSUE CULTURE TECHNOLOGY

Isolation, Cultivation, and Identification of microbes from Different Clinical and Environmental Samples

This training program will cover

- Samples Collection
- Culturing / Isolation
- Biochemical Identification

- Susceptibility tests
- Molecular Identification by PCR
- Antigen Based Detection
- Antigen Testing
- Antibody Testing

- Serological Tests

Eligibility Criteria: FA/F.sc/O-levels/A-levels/BS/MS in Microbiology/Biological Sciences/ Biotechnology or equivalent in relevant disciplines

Duration: 8 weeks

Learning Outcomes:

This scheme of training will enable the participants to learn how to isolate and identify a microorganism from a clinical or environmental specimens, and can diagnose different diseases, independently.

2. Title: FOOD INSPECTION AND TESTING TECHNOLOGY

Food Safety Management to enhance competitiveness of food products

- Good Hygienic Practices (GHP)
- Good Manufacturing Practices (GMP)
- Hazard Analysis and Critical Control Point (HACCP)
- Food Safety Management System (FSMS) ISO 22000:2018



Department of Microbiology

KOHSAR UNIVERSITY MURREE



- Audit guidelines of the ISO 19011:2018
- Halal Management System PS3733-:2019

Eligibility Criteria: FA/F.sc/O-levels/A-levels/BS/MS in Microbiology/Biological Sciences/ Biotechnology or equivalent in relevant disciplines

Duration: 4 weeks

Learning Outcomes1:

1. *Microbiome dysbiosis as a diagnostic signature.*
2. *Microbiome comparison b/w health & disease to shape healthy microbiome.*
3. *Identification unique microbiota beneficial for health.*
4. *To explore microbial Richness in different group.*
5. *Modulation of microbial flora with dietary patterns.*
6. *Correlation between Metabolic disorders & microbial dysbiosis*
7. *In developing food supplement for unhealthy individuals*

3. Title: MICROBIOME ANALYSIS

Use of microbiome dysbiosis as a diagnostic signature & Modulation of microbial flora with dietary patterns

- DNA extraction from the sample
- Marker based Microbiome Analysis
- Sequencing and tagging of Raw reads
- OUT assignment
- Analysis of Alpha & Beta diversity