Clinical Microbiology 0308433

Course Description

This course is designed to introduce the student of MLS to diagnostic microbiology

practice, purpose, phelosophy, organization, safety measures, selection, collection,

and processing of specimens from specific diseases, isolation of disease cause,

identification, and selection of therapy, with emphesis on automation, and fungal

diagnostic techniques.

Reference book

Title Bailey and Scott Diagnostic Microbiology.

Author(s) Finegold and Baron.

Publisher Mosby Co.

Year 2002

Edition 11th edition.

Book Websit : [http://www.mosby.com/ Merlin](http://www.mosby.com/%20Merlin)

Course Content Theory

Week 1

• Introduction to diagnosticmicrobiology: Purpose and philosophy.

• Laboratory safety, organization, and quality control.

Week 2

\* Hospital epidemiology and nosocomial infections.

Week 3

\* Cultivation, isolation, and identificationof microorganisms.

\* Selection, collection, and transport of specimens.

Week 4

* Microorganisms encountered in blood.

Week 5

\* Microorganisms encountered in Cerebrospinal fluids.

Week 6

\* Microorganisms encountered inrespiratory tract.

\* Microorganisms encountered ingastrointestinal tract.

Week 8

• Microorganisms encountered in urinary tract.

• Genital and sexually transmitted pathogens.

Week 9

* Microorganisms encountered in wounds, abscesses, skin, and soft

tissues

Week 10

Anaerobic pathogens

Week 11

Microorganisms encountered in solid tissues and bone

Week 12

Microorganisms encountered in bone marrow, and related body fluids.

Week 13

Antimicrobial testing and antimicrobial effectiveness

Week 14

Diagnostic aspects of fungal infections

Week 15

Non traditional methods and automations of microbial detection and identification

**Course Content Practical**

Week 1

Check in, Laboratory Safety Procedure and Policies.

Week 2

Staining Techniques and Microscopic Procedures.

Week 3

Media Preparation and Culture Techniques, Isolation Procedure,

Purification Techniques, and Identification Techniques.

Week 4

Specimens Collection, Transport, and Culture Techniques.

Week 5

Blood Culture and Microorganisms Encountered in Blood Culture.

Week 6

Microorganisms Encountered in Cerebrospinal Fluid.

Week7

Microorganisms Encountered in Nasal Swabs, Throat Swabs, Sputum, Deep

Tracheal Aspirates, etc.

Week 8

Microorganisms Encountered in GIT Infection.

Week 9

Microorganisms Encountered in Urinary Tract Infection, and Genital Infection

Week 10

Microorganisms Encountered in Wound,Abscesses, Skin, Bones, and Soft

Tissues.

Week 11

Microorganisms Encountered in Bone Marrow, and Other Body Fluid,Including Anaerobic Infections

Week 13

Anti Microbial Testing, Non Traditional Methods of Microbial Diagnostic,Identification, and Automation.

Week 14

Diagnostic Techniques in Fungal Infection