



Course syllabus

Department of ...MLT

College of Health Technical

University of Erbil polytechnic university

Subject: Advanced Laboratory Techniques

Course Book – (HD)

Lecturer's name: Dr Shler Qasim Hussien

Academic Year: 2023/2024

1. Course name	Advanced Laboratory Techniques
2. Lecturer name	Dr.shler.qasim hussien and
3. Department/ College	MLT
4. Contact	e-mail: shler.hussien@epu.edu.iq
5. Time (in hours) per week	Theory: 2
6. Office hours	Availability of the lecturer to the student
7. Course code	
8. Keywords	Diagnostic tools, Medical Checkups, MLT department.
9. Course overview:	
The overall goal	

Teaching this course aims to help the student to accomplish various techniques related to advanced pathological analyses study and that are related to various specialized topics.

10-Course objectives:

The following affective objectives pertain to the classroom and clinical components:

2. Demonstrate initiative by reviewing objectives and completion of reading assignments prior to class.
1. Demonstrate enthusiasm and interest in the profession of thickening by asking questions, participating in class
4. Participate in activities to encourage an ongoing involvement in professional development.
3. Demonstrate progression in laboratory skills by effective organization, coordination of multiple tasks and

11.Student's obligation

- ✓ Attendance is compulsory
- ✓ Students must be prepared for quiz anytime during the lecture
- ✓ Seminar presentation about specimen preparation and analysis
- ✓ Report writing about certain given topics

12. Forms of teaching.

Power point and data show

White board

Microscope, culture techniques and other common medical lab tools

Visiting governmental and private hospitals to get familiar with various lab devices.

13. Assessment scheme

Type of examination	Marks
Theory final	40
Midterm	20
Seminar, report, quiz and other activities	40

14- course topic:-

- 1-Type of medical labrotory
- 2-Medical laboratory samples
- 3- Urine analysis and interpretation (GUE)
- 4-Stool examination and cultivation of stool (GSE)
- 5- Forms of culture media for Bacteriological specimen
- 6- methods of Cultivation and identification of bacteriology specimen
- 7- Seminal fluid analysis (SFA)
- 8-Chromatography
- 9-Polymerase Chain Reaction (PCR)
- 10-Gel -Electrophoresis
- 11-Cell Fractionation: Extraction, Homogenization and Centrifugation
- 12-ELISA
- 13- Western blotting technique