**Theoretical and practical course plan form - Ilam University of Medical Sciences**

\* Introduction to the course: Practical specialized bacteriology \* Semester:

\* School: Paramedical \* Department: Microbiology

\* Course Name and Number: Practical Bacteriology

\* Field and Degree: Bachelor of Science in Laboratory, 5th Semester

\* Day and time: Sunday 10-8 and 6-4 \* Venue: Paramedical School

\* Name of course manager (course instructor):

\* Prerequisite courses: General Practical Microbiology 1

\* Office Address: \* Email Address:

**General purpose of the course:** Familiarity of the student with the laboratory environment and familiarity with practical methods of identifying bacteria

**The general topics of this course include the following:**

1-Familiarity of students with various methods of culture and isolation of gram-positive cocci (Staph and Strep) and negative (Neisseria), various tests and differential and selective culture media

 2- Familiarity of students with different methods of culture and isolation of gram-negative bacilli (Enterobacteriaceae) and gram-positive bacilli (Bacillus, Clostridium and Corynebacterium), various tests and differential and selective culture media

3- Familiarity of students with basic methods of culture and isolation of bacteria from different body systems such as blood, CSF and feces

**General purpose**

Familiarity of the student with the laboratory environment and familiarity with practical methods of identifying bacteria

**Training method**

Content is presented using PowerPoint. If there is a need for explanation and the student wants to provide more explanation, the writing process on the whiteboard is used.

Relevant practical materials will be explained along with the basis of tests, staining and culture media, and a sample will be done by the expert to observe the students.

Students begin to do the practical work described under the supervision of a professor and a laboratory expert. Our group discussion between students is done with the relevant professor or an experienced laboratory expert.

• **Student tasks** (student homework during the semester): Students should be able to learn and do some of the issues raised in the specific and general objectives of the lesson while attending class on time.

Main sources (observing the principles of source writing and giving an address for their preparation, including library, bookstore, internet, ......)

Mahon's book on diagnostic microbiology

**• Teaching methods and teaching aids used:**

1- Content is presented using PowerPoint. If there is a need for explanation and the student wants to provide more explanation, the writing process on the whiteboard is used.

2 - Students under the supervision of the professor and laboratory expert begin to do the practical work described.

4- Our group discussion is done between the students with the relevant professor or experienced laboratory expert.

• Methods and time of assessment and evaluation of the student and the bar related to each evaluation: (Type of exams in terms of how to design a question - loading - time of exams and assignments should be mentioned)

|  |  |  |  |
| --- | --- | --- | --- |
| method | score | date | time |
| quiz, group discussion, work report based on group 2 format | 2 |  |  |
| End of semester 18 | 18 |  |  |
|  |  |  |  |

Lesson rules and expectations from students

Course Name: Bacteriology Laboratory Field: Laboratory Science Semester 5G1 School: Paramedical

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| session | day | date | time | topic | lecturer |
| 1 | Sunday  |  | 8-10 | Streptococcus 1 |  |
| 2 | Sunday |  | 8-10 | Staphylococcus 1 |  |
| 3 | Sunday |  | 8-10 | Bacillus and Corynebacterium |  |
| 4 | Sunday |  | 8-10 | Enterobacteriaceae 1 (lactose positive) |  |
| 5 | Sunday |  | 8-10 | Enterobacteriaceae 3 (Mix) |  |
| 6 | Sunday |  | 8-10 | Vibrio, Pseudomonas and Acinetobacter |  |
| 7 | Sunday |  | 8-10 | Mycobacterium (culture method, TB test, method |  |
| 8 | Sunday |  | 8-10 | Review and reporting) |  |
| 9 | Sunday |  | 8-10 | Familiarity with the method of culturing anaerobic bacteria |  |
| 10 | Sunday |  | 8-10 |  (Perform and Interpret) MIC, MBC, Etest |  |
| 11 | Sunday |  | 8-10 | Clinical urination (culture, interpretation and reporting) |  |
| 12 | Sunday |  | 8-10 | Clinical Stool (Cultivation, Interpretation, and Reporting) |  |
| 13 | Sunday |  | 8-10 | Clinical blood (culture, interpretation and reporting) |  |
| 14 | Sunday |  | 8-10 | Clinical CSF and other body fluids (culture, interpretation and reporting) |  |