

*American University of Beirut*  
Faculty of Health Sciences  
Medical Laboratory Sciences Program  
LABM 250 (Clinical Parasitology and Urinalysis)  
Fall 17/18

**Lecturer** Dr. Soha Yazbek  
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**Course Description:**

The course is designed to acquaint the student with the tests required in analysis and examination of seminal fluid, urine and clinical specimen needed for diagnosing parasitic diseases. In addition to learning the principle of the tests performed, the student should become competent in interpreting the data obtained.

**General Instructional Objectives:**

Clinical Parasitology and Urinalysis allows students to:

- 1- correlate the different diagnostic techniques with their application
- 2- examine up to date testing procedures

**Specific Learning Outcomes:**

Following the completion of this course, students will be able to:

- 1.1- perform all the steps required for semen analysis and examination
- 1.2- describe all microscopic & biochemical investigation of urine specimens
- 1.3- learn the spectrum of parasites found in stool & their differential characteristics.
- 2- conduct the different techniques for the identification of intestinal parasites

## Course Content

<u>Date</u>	<u>Week</u>	<u>Topics</u>	<u>Laboratory Activities under Supervision</u>
	<b>Week 1</b> (Seminal Fluid)	- Analysis & examination of seminal fluid	- Perform all the steps required for semen analysis and examination
	<b>Week 2</b> (Urinalysis)	- Collection, transportation & macroscopic examination of urine specimen	- Conduct all steps required for collection, transportation & macroscopic examination of urine
	<b>Week 3</b> (Urinalysis)	- Routine chemical examination of urine - Interpretation of results for tests performed on urine. - Microscopic examination of urine (cells, epithelial cells & cast) - Occult Blood Test & Sudan III Stain - Quality Control	- Perform all biochemical investigation on different urine specimens (reagent strip & other tests)  - Perform all microscopic Investigations on different urine samples (Crystals in Urine; Parasites in Urine). - Examine Synovial Fluid (polarized microscope)
	<b>Week 4</b> (Parasitology)	- Parasitic infestation & epidemiology - Recovery of possible parasites from body sites - Specimens collection & transport	- Conduct the different techniques for the identification of intestinal parasites
	<b>Week 5</b> (Parasitology)	- Laboratory diagnosis for: Intestinal Amebae, Free-living Amebae, Flagellates and Ciliates	- Conduct the different techniques for the identification of intestinal parasites
	<b>Week 6</b> (Parasitology)	- Laboratory Diagnosis for: Coccidia, Microsporidia, Protozoa (blood and tissue) & Nematodes	- Perform the different techniques for the identification of Protozoa and Nematodes
	(Parasitology)	- Laboratory Diagnosis for; Trematode & Cestodes	- Conduct the different techniques for the identification of Trematode & Cestodes

## Evaluation

Students will be evaluated on the following:

Laboratory practical exam	30%
Slide show exam	10%
Theoretical exam	60%

## Reference and Books

1. Parasitology, Jack Chernin, 2000
2. Fundamentals of urine and body fluid analysis, Nancy A. Brunzel, 2004

## Course Policy

- 1- Prerequisite:** Students registering in this course should be familiar with the principles of Medical Parasitology (MBIM 223)
- 2- Attendance:** -This practicum course requires 80 contact hours in the Blood bank section at the American University Hospital. The student is responsible for arranging to make up for the missing work. Excused absences may be given if the student provides valid reasons to explain their absence.  
-Students are expected to attend all classes. In case of absence from any class, you are responsible for the work done and for any announcements that are made in the missed session.
- 3- Exams:** Students must take exams on set dates. Make-up exams will be given only in case of emergencies or major illness. Only Authorized medical reports will be accepted.
- 4- Dress Code:** Students will be expected to follow a dress code at the laboratory that follows the safety measures.
- 5- Academic Integrity:** Cheating and plagiarism will not be tolerated. Review the student Code of Conduct in your handbook and familiarize yourself with definitions and penalties. If you are in doubt about what constitutes plagiarism, ask your instructor because it is your responsibility to know. The American University of Beirut has a strict anti-cheating policy. Penalties include failing marks on the assignment in question, suspension or expulsion from University and a permanent mention of the disciplinary action in student's records.

AUB strives to make learning experiences as accessible as possible. If you anticipate or experience academic barriers due to a disability (including mental health, chronic or temporary medical conditions), please inform me immediately so that we can privately discuss options. In order to help establish reasonable accommodations and facilitate a smooth accommodations process, you are encouraged to contact the Accessible Education Office: : [accessibility@aub.edu.lb](mailto:accessibility@aub.edu.lb); +961-1-350000, x3246; West Hall, 314