

Course Syllabus No. 274252 Winter 2024

Name of the Course: Eukaryotic Pathogens ,Credit Points: 2

Course teaching staff

Course Coordinator:

Prof. Serge Ankri
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Contact Information:

Student Reception by appointment

Additional Instructors in the Course:

Prof. Daniel Kornitzer
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Course structure and times

Course Schedule:

Lectures: Mondays 08:30-10:30

Thursdays 08:30-10:30

Exams

Moed A Sunday 21/04/2024

Moed B

Course attendance

Course Attendance:

Attendance in lectures is highly recommended. Blue Hall.

pre-course requirements

Prerequisites for the Course:

General Genetics 274165, General Biochemistry 274241

Recommended resources for the course:

Murray, Patrick R., Rosenthal Ken S., Pfaller Michael: "Medical Microbiology," Elsevier Mosby, Eighth Edition (2016) or Ninth Edition (2021).

Overarching goal:

To learn about the most significant eukaryotic pathogens to humans. The course is divided into two parts: Parasites and Fungi.

Objectives: By the end of the course, the students will:

1. Compare medically important parasites from the protozoa and helminth groups, evaluating their respective chemotherapy, virulence mechanisms and immunology of parasitic diseases, and analyzing diagnostic and epidemiological aspects and the importance of parasites in Israel and around the world.
2. Analyze the fungal structure, physiological characteristics, and host-fungus relationships, distinguishing major groups of fungal diseases, their modes of transmission, host response, and methods of diagnosis and treatment.
3. Examine the mechanisms of action of antifungal agents, evaluating their effectiveness in combating fungal infections.

The Lecture topics in the course according to the weeks of the semester

Date	Subject of the lecture	Name of lecturer	Chapters in the course textbook
8:30-10:30 15.02.2024	Introduction to Parasitology, Tapeworms (Cestoda), Trematoda and diseases caused by them.	Prof. Serge Ankri	8 th ed. Section 7. Chapter 68,69,70,71,77
8:30-10:30 19.02.2024	Flukes (Trematoda) and diseases caused by them, Roundworms (Nematoda) and diseases caused by them.	Prof. Serge Ankri	8 th ed. Section 7. Chapter 75
8:30-10:30 22.02.2024	Roundworms (Nematoda) and diseases caused by them, Protozoa.	Prof. Serge Ankri	8 th ed. Section 7. Chapter 73
8:30-10:30 26.02.2024	Protozoa	Prof. Serge Ankri	8 th ed. Section 7. Chapter 74
8:30-10:30 29.02.2024	Protozoa	Prof. Serge Ankri	8 th ed. Section 7. Chapter 74
8:30-9:30 9:30-10:30 04.03.2024	Protozoa Introduction to Mycology, Fungal cell structure. Importance of fungi in medicine and types of mycoses.	Prof. Serge Ankri Prof. D. Kornitzer	8 th ed. Section 7. Chapter 74 8 th ed. Chapter 57, 58
8:30-10:30 07.03.2024	Fungal growth and metabolism. Fungal sexual and asexual reproduction.	Prof. D. Kornitzer	8 th ed. Chapter 57, 60
8:30-10:30 11.03.2024	Antifungal agents and their mechanisms of action.	Prof. D. Kornitzer	8 th ed. Chapter 61
8:30-10:30 14.03.2024	Superficial mycoses; Candidiasis. Cutaneous and subcutaneous mycoses	Dr. E. Avitan-Hersh	8 th ed. Chapter 62-63
8:30-10:30 18.03.2024	Opportunistic mycoses (Aspergillosis, Cryptococcosis).	Dr. E. Avitan-Hersh	8 th ed. Chapter 65
8:30-10:30 21.03.2024	Systemic endemic mycoses.	Dr. E. Avitan-Hersh	8 th ed. Chapter 64

Teaching Methods: Combined Clinical cases learning, inverted classroom and Lecture-based instruction

Assessment Tools: Final exam Grade Structure in the Course: Final exam: 100% (grade out of 100)

Exam format Multiple choice questions

Number of questions: 40 questions (20 questions for the Parasitology part and 20 questions for the Mycology part)

Exam duration time: 90 minutes

Students must pass the final exam with a grade of 55 in order to receive a passing grade in the course