האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

ANALYSIS OF PHARMACEUTICAL AGENTS - LABORATORY - 64640

Last update 31-10-2024

HU Credits: *4*

Degree/Cycle: *1st degree (Bachelor)*

Responsible Department: *School of Pharmacy*

Academic year: *0*

Semester: *1st Semester*

Teaching Languages: *Hebrew*

Campus: *Ein Karem*

Course/Module Coordinator: *Dr. Raphael Benhamou*

Coordinator Email: *raphael.benhamou@mail.huji.ac.il*

Coordinator Office Hours: *By appointment*

Teaching Staff:
Dr. Raphael Isaac Benhamou,
Dr. Rachel Ta-Shma,
Ms. Reut Sinai,
Mr. Amer Fadila,
Ms. Aseel Kashkush,
Mr. Elias Khaskia,
Mr. Muhammad AbdEl-haq,
Dr. Alina Nemirovskai,
Dr. Aviva Ezra

Course/Module description:
In the laboratory the students will familiarize themselves with instrumental and titrimetric methods for analysis of pharmaceuticals. The course focuses on the specific problems associated with quantitative analysis of pharmaceuticals; applying analytical methods to complex organic molecules and quantitative determination of the pharmaceutical in the presence of the matrix. Methods to be used included aqueous titrations, HPLC and spectral methods, gel analysis of proteins and nucleic acids' quantification of protein and DNAs.

Course/Module aims:
The main goal of the course is to ensure that the students can work independently according to the leading pharmacopeias (BP and USD) and analyze the purity of pharmaceutical agents.

Learning outcomes - On successful completion of this module, students should be able to:
To standardize solution for titrations
To carry out analyses of pharmaceuticals according the pharmacopea
To determine the purity of a pharmaceutical

Attendance requirements(%):
100

Teaching arrangement and method of instruction: There are lectures covering the theoretical aspects as well as wet labs.

Course/Module Content:
Titrations, HPLC, quantification of protein and Nucleic acids, SDS page gel, PCR,

and Agarose gel,

Required Reading:
All the necessary information including the required reading appear in the website of the course

Additional Reading Material:

Grading Scheme:
Written Exam % 35
Submission assignments during the semester: Exercises / Essays / Audits / Reports / Forum / Simulation / others 10 %
Clinical Work / Lab Work / Practical Work / Workshops 55 %

Additional information:
final grade (other) is based on:
55% on the evaluation of the instructor.
35% of the grade is based on the exams before each lab.
10% of the grade comes from the final and start reports.
students that will not provide his reports on time or do not attend one of the experiments will get a grade of 0 on this specific lab experiment or reports