

The Hebrew University of Jerusalem

Syllabus

Geniuses charlatans cheaters and lucky fellows-on the great discoveries and great cheating in bio - 92840

Last update 14-02-2021

HU Credits: 3

Degree/Cycle: 2nd degree (Master)

Responsible Department: Structural & Molecular Biochemistry

Academic year: 0

Semester: 2nd Semester

Teaching Languages: Hebrew

Campus: E. Safra

Course/Module Coordinator: Prof. David Engelberg

Coordinator Email: engelber@mail.huji.ac.il

Coordinator Office Hours: By appointment

Teaching Staff:

Prof David Engelberg

Course/Module description:

The course will describe some of the great discoveries in the history of life sciences and medicine, such as Mendel laws, discovery of Penicillin, insulin and the AIDS virus. Which discovery was planned and which was accidental. Who were the researchers who did not identify their lucky moments. In addition the course will describe frauds and discoveries stolen from other scientists.

Course/Module aims:

1. To improve the understanding that great discoveries may be made by coincidence and that the existence of scientific conceptions may hinder scientific breakthrough and progression.

Learning outcomes - On successful completion of this module, students should be able to:

Critically analyze scientific research and scientific publications in their current and historical perspectives.

Attendance requirements(%):

100%

Teaching arrangement and method of instruction: Lectures by the teacher and the students.

Course/Module Content:

Mendel laws
Discovery of penicillin and streptomycin
Aspirin
Insulin
The AIDS virus
Frauds: tissue culture without serum, discovery of "life radiation"
Lishchenko's biology and the fall of the USSR.
true geniuses: Kuhn, Pasteur, Tuvia Kushnir, Avram Hershko and more.

Required Reading:

Each student will receive a paper that was published 20 years ago in one of the leading journals, and will analyze the history and significance of the published results using additional papers in the field.

Additional Reading Material:

None

Grading Scheme:

Additional information:

None