

The Hebrew University of Jerusalem

Syllabus

Secrets of the human Genome - 94323

Last update 24-03-2014

HU Credits: 2

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: biomedical sciences

Academic year: 1

Semester: 1st Semester

Teaching Languages: Hebrew , English slides

Campus: Mt. Scopus

Course/Module Coordinator: Dr. Ann Saada (Reisch)

Coordinator Email: annsr@hadassah.org.il

Coordinator Office Hours: Sunday 15-16 Hadassah EK

Teaching Staff:

Dr. Ann Saada Reisch

Course/Module description:

The curriculum includes learning the basics of human genetics, the structure and expression of genes while introducing some analytical methods. The molecular basis of (some) inherited diseases will be discussed more in detail including some ethical issues. This introductory course is also intended for students with now prior acquaintance with the subject.

Course/Module aims:

To understand the basics of human genetics and the expression of genes in health and disease.

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

To know and to understand the basics of human genetics and gene expression.

Attendance requirements(%):

70%

Teaching arrangement and method of instruction: frontal lectures

Course/Module Content:

introduction to cell biology
chromosomes
DNA structure and replication
gene expression
modes of inheritance, Mendel's laws
Cytogenetics
Chromosomal aberrations
Sex chromosomes
DNA mapping and sequencing
The molecular and biochemical basis of inherited diseases
Multifactorial genetic diseases
Gene and stem cell therapy

Required Reading:

Additional Reading Material:
Molecular biology of the cell

Human Molecular Genetics

An Introduction to Genetic Analysis

Course/Module evaluation:

End of year written/oral examination 0 %

Presentation 0 %

Participation in Tutorials 0 %

Project work 70 %

Assignments 0 %

Reports 0 %

Research project 0 %

Quizzes 30 %

Other 0 %

Additional information: