



The Hebrew University of Jerusalem

Syllabus

PHYSICS - 1150

Last update 21-10-2020

HU Credits: 0

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: Pre-Academic Preparation for Natural and Life Sciences

Academic year: 0

Semester: Yearly

Teaching Languages: Hebrew

Campus: Mt. Scopus

Course/Module Coordinator: Svetlana Levin

Coordinator Email: levinsveta@gmail.com

Coordinator Office Hours: Mon' 17:00-18:00

12:00-12:30

Thu

14:00-15.00

Teaching Staff:

Ms. Svetalana Levin,
Mr.

Course/Module description:

This course is an introduction to physics. The main subjects are : Kinematics, Dynamics, Pulse and Moment, Electrostatics, Electric circuits, Magnetism,

Course/Module aims:

Knowledge and understanding of basic concepts and basic laws in physics.
Imparting self-learning skills, using mathematical tools to solve physical problems.
Collaborative work.

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

Explaining basic concepts of physics.
Mathematical explanations of physical phenomena
Basis for following courses in physics and science

Attendance requirements(%):

100%

Teaching arrangement and method of instruction: Lectures, exercises, videos, presentations, lab work, group work, Self-learning.

Course/Module Content:

Kinematics: velocity and acceleration, motion with constant acceleration, circular motion and relative motion.

Dynamics: mass, force, Newton`s laws, Newton`s universal law of gravitation.

Work and energy; law of conservation of energy.

Momentum and impulse, . Conservation of momentum

Harmonic oscillation:

*Electrostatics : Coulomb's law, Electric field, Power of electric fields, Potential,
Electrical circuits: Current, Power on currents, Resistance, Ohm's law, EMF .
Magnetics: Magnetic field,*

Required Reading:

No required literature.

Additional Reading Material:

Course/Module evaluation:

*End of year written/oral examination 35 %
Presentation 0 %
Participation in Tutorials 5 %
Project work 5 %
Assignments 5 %
Reports 0 %
Research project 0 %
Quizzes 30 %
Other 20 %
Mid-term Examination*

Additional information: