האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

Analytical Electrodynamics - 77401

Last update 10-03-2021

HU Credits: *5*

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

Responsible Department: *Physics*

Academic year: *0*

Semester: *2nd Semester*

Teaching Languages: *Hebrew*

Campus: *E. Safra*

Course/Module Coordinator: *Prof Maxim Khodas*

Coordinator Email: *maxim.khodas@mail.huji.ac.il*

Coordinator Office Hours: *By appointment*

Teaching Staff:

Prof Maxim Khodas,
Mr. Ohad Vilk

Course/Module description:
The course will deal with the conceptual and technical aspects of the theory of electromagnetism.

Course/Module aims:
See learning outcomes

Learning outcomes - On successful completion of this module, students should be able to:
1. Understanding of the electromagnetism as a relativistic theory
2. Ability to solve boundary condition problems in electro-magnetism.
3. Understanding the phenomenology of magnetic matter
2. Solve problems of basic radiation configurations.

Attendance requirements(%):
0

Teaching arrangement and method of instruction: Lecture and recitation.

Course/Module Content:
1. Relativity as a basis of the theory of electromagnetism
2. Boundary condition problems in electrostatics.
3. Magnetic Matter
4. Radiation.

Required Reading:
None

Additional Reading Material:
Electrodynamics/J.D.Jackson

Introduction to Electrodynamics/Griffiths

The Classical Theory of Fields/L.D.Landau E.M.Lifshitz

Course/Module evaluation:

End of year written/oral examination 95 %
Presentation 0 %
Participation in Tutorials 0 %
Project work 0 %
Assignments 5 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information:

The test is worth 95 points.

Beyond that, every homework assignment which received a grade above 75, gives an additional point, up to a maximum of 10 points.

There will be one midterm.
The midterm is worth 15 points.
The midterm can only raise the grade (magen).
The midterm will take place on the following date: May 7th