Syllabus
Analytical Electrodynamics
77401
Spring 2018

- Instructor: Maxim Khodas
  Office: Danciger B, 211 (the map is available through the website)
  Webpage: http://phys.huji.ac.il/∼maxim.khodas
  The attendance of classes is not required but strongly recommended.
- Office hours of the instructor:
  - Wed 2pm - 4pm
- TA: Mr. Eli Engelberg
  Solving the homework assignments is essential for the understanding of the material.
- Grading scheme.
  - Final Exam
    The test is worth 95 points.
  - Homework (distributed weekly).
    Every homework assignment which received a grade above 75, gives an additional point, up to a maximum of 10 points.
    The assignments submitted after the due date will **not** be graded.
  - Midterms
    There will be two midterms. The first midterm will be worth 5 points, and the second midterm will be worth 10 points. The midterms can only raise the grade (magen).
    The midterms will take place on the following dates:
    First midterm: April 24
    Second midterm: June 8.

In all the exams to earn all points one has to

1. Wright clearly. In case the grader cannot decipher the text written by the student the points will not be given.
2. Provide the explanation in the readable form to earn points.
3. The answers without explanation will not earn all the points.
4. All the non-standard notations that are introduced have to be explained.
5. Give the final answer in explicit form.

Textbooks used for the course:

1. J. D. Jackson, "Classical Electrodynamics", 3rd edition, abbreviated as J.D.J.
   This is the main textbook for the course.
2. Andrew Zangwill, "Modern Electrodynamics", 1st edition, abbreviated as A.Z.
   This book contains lots of modern style problems and applications. I will use it heavily when discussing magnetic matter.
3. L.D. Landau and E.M. Lifshitz "The Classical Theory of Fields" (Volume 2 of A Course of Theoretical Physics).
   This is a wonderful text especially when it comes to relativity. I will rely on it in part when discussing radiation.
4. David J. Griffiths, "Introduction to Electrodynamics" is a wonderful resource that may help you to get started in case you have to refresh the material learned in the previous course on electromagnetism.

Other useful references:

1. Philip M. Morse and Herman Feshbach, "Methods of Theoretical Physics".
2. G. Arfken and H. Weber, "Mathematical Methods for Physicists".