

The Department of Mathematics

2022–23–B term

Course Name Electricity and Magnetism 2

Course Number 203.1.2381

Course web page

<https://www.math.bgu.ac.il/en/teaching/spring2023/courses/electricity-and-magnetism-2>

Office Hours <https://www.math.bgu.ac.il/en/teaching/hours>

Abstract

Requirements and grading¹

Course topics

Mathematical reminder: Vector calculus. Maxwell equations in vacuum, continuity and boundary conditions. Electrostatics in free space, Green's function. Electrostatics with boundaries, Laplace equation for various symmetries. Magnetostatics. Electrodynamics, induction, conservation laws. Electromagnetic waves. Relativistic electrodynamics. Fields of moving charges. Radiation

¹Information may change during the first two weeks of the term. Please consult the webpage for updates