

## 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 grading<sup>1</sup>**

### **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

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