

## The Department of Mathematics

2023–24–A term

**Course Name** Physics 3

**Course Number** 203.1.2121

**Course web page**

<https://www.math.bgu.ac.il/en/teaching/fall2024/courses/physics-laboratory-c>

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

### Abstract

### Requirements and grading<sup>1</sup>

### Course topics

Free oscillations of simple systems (including linearity and superposition principle). Free oscillations of systems with many degrees of freedom (including vibrations of a string and Fourier analysis). Driven oscillations. Traveling waves. Reflection and Transmission. Modulations, pulses, and wave packets. Waves in two and three dimensions. Polarizations. Linear optics. Interference and diffraction. The particle properties of waves. The atom and the wave properties of particles. Elementary particles

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