

Faculty of Computers and Information Technology

Advanced Physics

Information :

Course Code : BPH 211

Level : Undergraduate

Course Hours : 3.00- Hours

Department : computer Science Program

Instructor Information :

| Title | Name | Office hours |
|--------------------|---|--------------|
| Lecturer | Mahmoud Mohamed Saad Abdelnabi | |
| Teaching Assistant | Mariam Mohamed Ali Ahmed Elshimey | |
| Teaching Assistant | Farah Hossam Eldin Mahmoud Abdelhamed Ibrahim | |

Description :

The course provides students with a comprehensive exploration of various topics in physics, focusing on oscillatory and wave motion, optics, and quantum physics. Topics covered in this course include oscillatory motion, wave motion, sound waves, Doppler effect, superposition and standing waves, principles of ray optics, Huygens' Principle, reflection, and refraction. Wave optics topics include interference, diffraction patterns, and polarization. The course also introduces important principles such as Max-Planck's principle and provides an introduction to quantum physics, covering atomic physics, molecules, and solids. Hands-on provisions include laboratory experiments and/or demonstrations to enhance understanding and practical application of the theoretical concepts.