



Jordan University of Science and Technology
Faculty of Science & Arts
Physics Department

PHY102A General Physics (2) (For Life Sciences Majors)

First Semester 2022-2023

Course Catalog

3 Credit Hours. This course covers topics in static electricity, electric current and circuits, magnetism, optics and optical instruments, modern physics.

Text Book

Title	Physics
Author(s)	Kane & Sternheim
Edition	3rd Edition
Short Name	Physics
Other Information	

Instructor

Name	Prof. Mohammad-Khair Qaseer
Office Location	PH4 L-1
Office Hours	Sun : 11:00 - 12:30 Mon : 09:00 - 10:00 Tue : 10:30 - 12:30 Wed : 08:30 - 10:00
Email	qaseer@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Mon, Wed : 11:30 - 13:00
Room: NG41

Tentative List of Topics Covered

Weeks	Topic	References
Week 1	Electric force	
Week 2	Electric field and potential	
Week 3	capacitors	
Week 4	Electric current, Ohm's law, resistance	
Week 5	Kirchhoff's law, power, RC-circuit	
Week 6	Magnetic field, magnetic force, magnetic dipoles	
Week 7	Sources of magnetic field, magnetic moment	
Week 8	Faraday's law, generators	
Week 9	Transformers and magnetic materials	
Week 10	Light, reflection, refraction	
Week 11	Mirrors, lenses	
Week 12	Optical instruments, defects	
Week 13	Wave and particle properties of light	
Week 14	Wave properties of matter and de Broglie hypothesis	
Week 15	Final Exam	

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
electricity [31]	30%	First Exam
Induction + Magnetism [31]	30%	Second Exam
Optics + Modern physics [41]	40%	

Relationship to Program Student Outcomes (Out of 100%)					
1	2	3	4	5	6
100					

Evaluation	
Assessment Tool	Weight
First Exam	30%
Second Exam	30%

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