School of Pharmacy / School of Pharmacy (English)

2024 - 2025 Academic Year

PHYSICS

Syllabus

Course Description					
Name	**Code**	**Semester**	**T+A Hour**	**Credit**	**ECTS**
PHYSICS	PHA1139730	Fall Semester	2+0	2	3

Prerequisites Courses	
Recommended Elective Courses	
Language of Instruction	English
Course Level	First Cycle (Bachelor's Degree)
Course Type	Required
Course Coordinator	Lect. Mehmet Sıddık CEBE
Name of Lecturer(s)	Lect. Mehmet Sıddık CEBE
Assistant(s)	
Aim	To gain knowledge and develop skills in the basic concept of mechanics and radiation.
Course Content	This course contains; Units, physical quantities,Vectors, addition of vectors, Dot product,Cross product,Motion in one dimension,Motion in two dimensions,Newton's laws of motion,Newton's laws of motion,Work and Kinetic Energy, Potential Energy and Conservation of Energy,Work and Kinetic Energy, Potential Energy and Conservation of Energy,Charge and Matter,Electric Field,Gauss' Law,Electric Potential,Electromagnetic Waves.

Course Learning Outcomes	**Teaching Methods**	**Assessment Methods**
Understands the basic principles of one and multi-dimensional motion	10, 12, 16, 9	A
Distinguishes and apply the basic concepts of particle dynamics	10, 12, 16, 9	A
Distinguishes the concepts of Work and Energy	10, 12, 16, 9	A
Distinguishes the concepts of electric charge and electric field and makes their applications	10, 12, 16, 9	A
Learns the concept of electric current and can apply it to electrical circuits	10, 12, 16, 9	A
Examines electromagnetic waves by synthesizing the concepts of electricity and magnetism	10, 12, 16, 9	A

Teaching Methods	10: Discussion Method, 12: Problem Solving Method, 16: Question - Answer Technique, 9: Lecture Method
Assessment Methods	A: Traditional Written Exam

Lecture Schedule

Sequence	**Topics**	**Preliminary Preparation**
1	Units, physical quantities	Mebis Notes
2	Vectors, addition of vectors, Dot product	Mebis Notes
3	Cross product	Mebis Notes
4	Motion in one dimension	Mebis Notes
5	Motion in two dimensions	Mebis Notes
6	Newton's laws of motion	Mebis Notes
7	Newton's laws of motion	Mebis Notes
8	Work and Kinetic Energy, Potential Energy and Conservation of Energy	Mebis Notes
9	Work and Kinetic Energy, Potential Energy and Conservation of Energy	Mebis Notes
10	Charge and Matter	Mebis Notes
11	Electric Field	Mebis Notes
12	Gauss' Law	Mebis Notes
13	Electric Potential	Mebis Notes
14	Electromagnetic Waves	Mebis Notes

Evaluation Methods	**Weight(%)**
Midterm Exam	40
General Exam	60

Resources

1. John W. Jewett, Raymond A. Serway, Physics for Scientists and Engineers, Technology Update (any edition).

2. Mebis Course Notes