هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

Course Title:	Applied Physics
Course Code:	**191PHYS**
Program:	**MMET, EPET, CHET**
Department:	**EPET**
College:	**College of Applied Industrial Technology**
Institution:	**Jazan University**
Version:	T-104-2022
Last Revision Date:	**2023**

Table of Contents:

A. General information about the course:

Course Identification					
1. Credit hours:	2				
2. Course type					
a.	University ☐	College ☒	Department☐	Track☐	Others☐
b.	Required ☒	Elective☐			
3. Level/year at which this course is offered: One/First					
4. Course general Description This course is designed to enable students to acquire sufficient knowledge in Physics relevant to applied technology of variety of paths. The course provides physics concepts and their applications in motion and forces, work and energy, electrostatic forces, electromagnetic, components of DC and AC circuits, as well as light and sound nature. Techniques, skills and modern computerized apparatus necessary to make laboratory measurements possible are adopted. Experiments in mechanics, electricity and magnetism are made to support the theory and to meet the needs of engineering technology programs as well as to familiarize students with team work.					
5. Pre-requirements for this course (if any): None					
6. Co- requirements for this course (if any): None					
7. Course Main Objective(s) Students who study technical physics are prepared to work on forefront ideas in engineering technology. The course might focus on basic research in rigid body physics, matter physics, applied technology in areas such as materials science, energy, and electrostatic. The course also enhances the ability of technical students to be problem solvers by posting their analytical skills.					

1. Teaching mode (**mark all that apply)**

No	Mode of Instruction	Contact Hours	Percentage
1.	Traditional classroom	3	100
2.	E-learning	--	--
3.	Hybrid • Traditional classroom • E-learning	--	--
4.	Distance learning	--	--

2. Contact Hours **(based on the academic semester)**

No	Activity	Contact Hours
1.	Lectures	12

2.	Laboratory/Studio	24
3.	Field	--
4.	Tutorial	
5.	Others (specify)	--
	Total	36

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Describe basic concepts of physics topics related manipulate units and their conversions with proper use of engineering notations	K1	Lecture, tutorial, active learning	Quizzes, Assignments, exams
…				
2.0	Skills			
2.1	Solve physics problems related to electrical, mechanical and chemical engineering technology using mathematical algorithms	S1,S2	Lecture, tutorial, active learning	Quizzes, Assignments, exams
2.2	Apply measuring, recording, and interpreting experimental data in a laboratory setting in order to verify physical principles	S4	Lab assignments	Lab exam
3.0	Values, autonomy, and responsibility			
3.1	Demonstrate the ability to work independently and meet deadlines.	V1	Assignments	Participation in classroom
3.2				
…				

C. Course Content

No	List of Topics	Contact Hours
1.	Measurement	05
2.	Kinematics	05
3.	Motion and force	04
4.	Work, energy, and power	05
5.	Electrostatic	05
6.	Electromagnetic Induction	07
7.	Materials	05
Total		36

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Class work activity/Class Interaction and presentation	All weeks	10 %
2.	Homework	3th Week & 9th week	10 %
3.	Mid-term Exam	6th Week to 7th week	20 %
4.	Final Practical Exam	11th week	20 %
5.	Final Term Exam	As per scheduled	40%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	• Physics for Scientists& Engineers with Modern Physics; 7th edition, Serway, Saunders Gold Series, 2007.
Supportive References	• University Physics; Young and Freedman, pearson, Addison Wesley, 11th edition, 2004. • Fundamentals of Physics; Halliday, Resnik and Walker, John Wiley and Sons Inc., 2007.
Electronic Materials	Not utilized
Other Learning Materials	Not utilized

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classrooms should be furnished for 25 students with • White board • Appropriate Chairs
Technology equipment (projector, smart board, software)	
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching		
Effectiveness of students assessment	Institution	Online Direct Survey
Quality of learning resources		
The extent to which CLOs have been achieved	Course Coordinator	Direct Survey
Other		

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval Data

COUNCIL /COMMITTEE	College of Applied Industrial Technology(CAIT)
REFERENCE NO.	
DATE	