BA114 Physics II

COURSE INFORMATION

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Lab.	
BA113	1	2	2	2	1	3

COURSE AIM

To introduce heat, work, and the laws of thermodynamics, To introduce the applications of these physical concepts to engineering problems, To expand upon and reinforce these concepts in the laboratory.

COURSE WEEKLY CONTENTS

1 Heat energy and thermal phase changes
2 State equation of ideal gases and equipartition theorem
3 Internal energy and work
4 First law of thermodynamic, and specific heat relations of ideal gases
5 Quasi-static processes with ideal gases
6 Quasi-static processes with ideal gases (cont.)
7 Midterm Exam
8 Thermodynamics cycles
9 Second law of thermodynamics: Entropy
10 Heat engines and refrigerators: Carnot theory
11 Heat transfer
12 12th Assessment
13 Oscillatory motion
14 Wave equation
15 Revision

STUDENT GRADING & ASSESSMENT

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20 Midterm	← 10 MARKS To be freely distributed among possible assessments				→	30
8 to 12	←		20 MARKS			→	20
13 to 15	←		10 MARKS			→	10
16 or 17	40 Final						40
Total	Exams	Assign.	Quizzes	Reports	Present.	Lab.	100

REFERENCES

Textbook	Serway and Jewett, Physics for Scientists and Engineers 9th eddition (Chapter 15 - 22)
Other	Paul G.Hewitt “Conceptual Physics”, Pearson, 2014