

BA 114 – Physics (2)

C O U R S E I N F O R M A T I O N

Course Title: Physics (2).

Code: BA114.

Contact Hours (hours/week): Lecture – 2 Hrs. Tutorial-2Hrs. Laboratory – 1 Hrs. Credit – 3.

Prerequisite: BA113 Physics (1)

Course Coordinator: Assoc. Prof. Dr. Hani Kaldass

G R A D I N G

Class Performance/Attendance: 10%

Midterm1/Assignments – (7th Week): 30%

Midterm # 2/Assignments – (12th Week): 20%

Final Exam: 40%

C O U R S E D E S C R I P T I O N

This course is concerned with the investigation of the behavior of the fluid under different conditions to calculate the net work done on or by the system.. It is also concerned with standing the first and second law of thermodynamics. Heat, work and internal energy of the fluids (liquid and gas) should be calculated for different processes under different condition. Heat transfer is also studied through this course.

T E X T B O O K S

Heat and thermodynamics ‘Eastop and Macckonhy ‘

C O U R S E A I M

The aim of this course is to develop the skills of students to solve the problems of Heat and thermodynamics and understanding the different cases and condition under which thermodynamic system operates.

C O U R S E O B J E C T I V E S

The objectives of this course are: Understanding the relation between heat, work and the conservation of energy through thermodynamic cycle. Also, the student must know the relation between the different units used through this Course.

COURSE OUTLINE

Week Number 1: Introduction

Week Number 2: Reversible Work

Week Number 3: The First Law of Thermodynamics

Week Number 4: Steady Flow Equation

Week Number 5: Working Fluid- Steam

Week Number 6: Working Fluid- Steam

Week Number 7: Working Fluid- Perfect Gas + 7th Week Exam

Week Number 8: Working Fluid- Perfect Gas

Week Number 9: Reversible Processes

Week Number 10: Reversible Processes

Week Number 11: Reversible process

Week Number 12: Second Law of Thermodynamics + 12th Week Exam

Week Number 13: Second Law of Thermodynamics

Week Number 14: Heat transfer

Week Number 15: Heat transfer

Week Number 16: Final Exam.

TOOLS REQUIRED:

Use of the steam table