

DESIGN OF ENERGY SYSTEMS (3 CH.)

INSTRUCTOR:

(0954725)

OBJECTIVES:

This course is designated for postgraduate mechanical engineering students who are interested in deep study of energy systems design and performance studies. This study will give the students large capabilities in using their previous knowledge of thermal sciences to design and performance studies and analysis of systems such as: Pipes networks, heat exchangers and prime movers. An introduction to system simulation will be covered.

TEXT BOOK:

Analysis and design of energy systems, by B. Hodge, Printice Hall publicatio.

READINGS:

Design of thermal systems, by W. Stoecker, Mc Graw Hill publications.

Design and optimization of thermal systems, Y. Jaluria, McGraw Hill.

Elements of thermal fluid systems design, L. Burmeister, Printice hall.

COURSE CONTENTS:

- 1- Revision of all related basics.
- 2- Piping systems.
- 3- Heat exchangers.
- 4- Prime movers.
- 5- Systems simulation.

GRADING:

Attendance and cooperation	10%
Home works	10%
Projects	20%
Mid - term exam.	20%
Final exam	40%
