

THE ENGINEERS' CLUB OF PHILADELPHIA
(215) 985-5701
www.engrclub.org

MECHANICAL ENGINEERING COURSES
BASIC PIPING DESIGN

The cost of this ten session course is \$550. It presents the fundamentals of piping design found in boilers, airconditioning distributions, refineries, nuclear and fossil fuel power plants, chemical processing and metallurgical industries and all types of drainage systems. This course is designed for the person who wishes to obtain a basic background in the theory and application of piping. A working knowledge of simple mathematics and basic science are the only prerequisites. A textbook on fundamentals and technical literature will be included.

This course is being taught by Gregory Wilhelm P.E., and expert in the field of piping design, and will be held on Thursday evenings from 7:00 PM to 9:00 PM in a conference room at Satterthwaith & Associates, 720 Old Fernhill Road, West Chester PA 19380.

03/20/08 SESSION 1

INTRODUCTION TO THE FIELD OF PIPING-Pipe, what it is, how it is made, types, schedules. Materials of construction, end conditions. ASME Codes. Description.

03/27/08 SESSION 2

FITTINGS-Types, ratings, materials of construction, applications, dimensions, end conditions, drawing representation.

04/03/08 SESSION 3

FLUID FLOW THROUGH PIPES

04/10/08 SESSION 4

VALVES-Definition and usage, types, ratings, and facings. Materials of construction, drawing representation and dimensions.

04/17/08 SESSION 5

CONTROL VALVES-Types of control valves. Their function and piping design of control valve stations.

04/24/08 SESSION 6

SYSTEMS-Usage and evaluation of piping in closed pumping systems - sizing.

05/01/08 SESSION 7

PUMP SYSTEMS-Open, negative and positive.

05/08/08 SESSION 8

INSTRUMENTATION-Types of instruments piping persons are responsible for in design and proper installation in piping systems, such as flow meters, thermocouples and pressure instruments.

05/15/08 SESSION 9

FLOW DIAGRAMS AND PIPE SIZING OF STEAM SYSTEMS

05/22/08 SESSION 10

PIPING SYSTEMS FOR DRAINAGE